



Air Conditioning & Heating

CPH COMMERCIAL

7½- TO 12½-TON SELF-CONTAINED

PACKAGED HEAT PUMP

UP TO 11.5 EER

UP TO 3.5 COP

COOLING / HEATING CAPACITIES:

90,000 — 118,000 BTU/H



Standard Features

- R-410A chlorine-free refrigerant
- High-efficiency scroll compressor
- Copper tube / aluminum fin coils
- Contactor with lugs
- High-capacity, steel-cased filter dryer
- Single-point entry
- 24-volt terminal strip
- Convertible
- Easy to service
- Built-in filter rack with standard 2" filters
- Bottom utility entry
- AHRI Certified; ETL Listed

Cabinet Features

- Heavy-gauge, galvanized-steel cabinet with UV-resistant powder-paint finish
- Full Perimeter Rail
- Curb Fit

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* Complete warranty details available from your local dealer or at www.goodmanmfg.com.



NOMENCLATURE

	C	P	H	090	045	3	B	X	X	X																																
	1	2	3	4,5,6	7,8,9	10	11	12	13	14																																
Brand	C Commercial									Factory-Installed Options																																
Configuration	P Packaged Unit									X No Options																																
Application	C Cooling G Gas Heat H Heat Pump									A Non-powered convenience outlet B Powered convenience outlet C Low-ambient kit F Non-powered convenience outlet; Low-ambient kit M Powered convenience outlet; Low-ambient kit																																
Nominal Gross Cooling Capacity	<table border="1"> <tr> <td>036</td> <td>3 Tons</td> <td>102</td> <td>8½ Tons</td> </tr> <tr> <td>048</td> <td>4 Tons</td> <td>120</td> <td>10 Tons</td> </tr> <tr> <td>060</td> <td>5 Tons</td> <td>150</td> <td>12½ tons</td> </tr> <tr> <td>072</td> <td>6 Tons</td> <td>180</td> <td>15 Tons</td> </tr> <tr> <td>090</td> <td>7½ Tons</td> <td>240</td> <td>20 Tons</td> </tr> </table>									036	3 Tons	102	8½ Tons	048	4 Tons	120	10 Tons	060	5 Tons	150	12½ tons	072	6 Tons	180	15 Tons	090	7½ Tons	240	20 Tons	Factory-Installed Options												
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Nominal Heating Capacity	<table border="1"> <tr> <th>CPG</th> <th colspan="3">CPC/CPH (Factory-Installed Electric Heat)</th> </tr> <tr> <td>045</td> <td>45,000 BTU/h</td> <td>XXX</td> <td>No Heat</td> </tr> <tr> <td>090</td> <td>90,000 BTU/h</td> <td>010</td> <td>10 kW</td> </tr> <tr> <td>115</td> <td>115,000 BTU/h</td> <td>015</td> <td>15 kW</td> </tr> <tr> <td>140</td> <td>140,000 BTU/h</td> <td>016</td> <td>15 kW</td> </tr> <tr> <td>210</td> <td>210,000 BTU/h</td> <td>018</td> <td>18 kW</td> </tr> <tr> <td>350</td> <td>350,000 BTU/h</td> <td>020</td> <td>20 kW</td> </tr> <tr> <td>400</td> <td>400,000 BTU/h</td> <td>025</td> <td>25 kW</td> </tr> </table>									CPG	CPC/CPH (Factory-Installed Electric Heat)			045	45,000 BTU/h	XXX	No Heat	090	90,000 BTU/h	010	10 kW	115	115,000 BTU/h	015	15 kW	140	140,000 BTU/h	016	15 kW	210	210,000 BTU/h	018	18 kW	350	350,000 BTU/h	020	20 kW	400	400,000 BTU/h	025	25 kW	Factory-Installed Options
CPG	CPC/CPH (Factory-Installed Electric Heat)																																									
045	45,000 BTU/h	XXX	No Heat																																							
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Voltage	<table border="1"> <tr> <td>1</td> <td>208V 1-Phase</td> <td>4</td> <td>460V 3-Phase</td> </tr> <tr> <td>2</td> <td>220/240V 1-Phase 50 Hz</td> <td>5</td> <td>380/415V 3-Phase 50 Hz</td> </tr> <tr> <td>3</td> <td>208/230V 3-Phase</td> <td>7</td> <td>575V 3-Phase</td> </tr> </table>									1	208V 1-Phase	4	460V 3-Phase	2	220/240V 1-Phase 50 Hz	5	380/415V 3-Phase 50 Hz	3	208/230V 3-Phase	7	575V 3-Phase	Factory-Installed Options																				
1	208V 1-Phase	4	460V 3-Phase																																							
2	220/240V 1-Phase 50 Hz	5	380/415V 3-Phase 50 Hz																																							
3	208/230V 3-Phase	7	575V 3-Phase																																							
										Supply Fan/Drive Type/Motors																																
										X No Options A Downflow Economizer B Belt Drive D Direct Drive H High-Static Belt Drive (Factory-Installed)																																

Factory-Installed Options

- Condenser Hail Guards: Louvered metal guards help protect the condenser coil from damage from hail and debris. Available as a factory-installed option on 3- to 12½-ton units. Hail guards are standard on 15- and 20-ton units.
- Stainless-Steel Heat Exchanger (CPG units only): A tubular heat exchanger made of 409-type stainless steel is installed in the unit.
- Ultra-Gold Condenser Coil: Offers increased corrosion resistance of the condenser coil.
- Low-Ambient Kit: Allows for cooling operation at lower outdoor temperatures. On the 3- to 6-ton units, cooling operation is extended from 60°F ambient temperature to 35°F outside air temperature. On 7½- to 20-ton units, cooling operation is extended from 35°F ambient temperature to 0°F outside air temperature.
- Economizers (Downflow): Based on air conditions, can provide outside air to cool the space.
- High Static Kits: Provides airflow in higher static applications.
- Electric Heat Kits (CPC and CPH units only): Available in all voltage options.
- Non-powered Convenience Outlet: A 120V, 15A, GFCI outlet makes it easier for technicians to service the unit once an electrician runs power to the outlet.
- Powered Convenience Outlet: A 120V, 15A, GFCI outlet powered with a transformer built into the unit.

PRODUCT SPECIFICATIONS — 7½ TONS

	CPH090 ***3B***	CPH090 ***4B***	CPH090 ***7B***
COOLING CAPACITY			
Total BTU/h	90,000	90,000	90,000
Sensible BTU/h	65,700	65,700	65,700
EER / IEER	11.5 / 11.2	11.5 / 11.2	11.5 / 11.2
IPLV	12.30	12.30	12.30
Decibels	83	83	83
AHRI Reference #s	3000984	3000984	3000984
HEATING CAPACITY			
BTU/h / COP (47° F)	90,000 / 3.5	90,000 / 3.5	90,000 / 3.5
BTU/h / COP (17° F)	55,500 / 2.4	55,500 / 2.4	56,500 / 2.4
EVAPORATOR MOTOR / COIL			
Motor Type	Belt Drive	Belt Drive	Belt Drive
Indoor Nominal CFM	3,000	3,000	3,000
Indoor Motor FLA (Cooling)	7.8	3.9	2.5
Horsepower - RPM	2.0 - 1725	2.0 - 1725	2.0 - 1725
Piston Size (Cooling)	0.076	0.076	0.078
Filter Size	16" x 24" x 2"	16" x 24" x 2"	16" x 24" x 2"
Drain Size (NPT)	¾"	¾"	¾"
R-410A Refrigerant Charge: Cir #1 / #2 (oz.)	215 / 215	215 / 215	200 / 200
Evaporator Coil Face Area (ft²)	10.2	10.2	10.2
Rows Deep / Fins per Inch	4 / 16	4 / 16	4 / 16
BELT DRIVE EVAP FAN DATA			
# of Wheels (D x W)	1 (15" x 12")	1 (15" x 12")	1 (15" x 12")
Motor Sheave / Blower Sheave	VL40 / AK74	VL40 / AK74	VL40 / AK74
Belt	AX51	AX51	AX51
CONDENSER FAN / COIL			
Quantity of Condenser Fan Motors	2	2	2
Horsepower - RPM	¼ - 1090	¼ - 890	¼ - 1075
Fan Diameter / # Fan Blades	22 / 4	22 / 4	22 / 4
Outdoor Expansion Device	0.052	0.052	0.055
Outdoor Nominal CFM	7,600	7,600	7,600
Face Area (ft²)	32.4	32.4	32.4
# Coils / Rows Deep - Fins per Inch	2 / 2 - 20	2 / 2 - 20	2 / 2 - 20
Piston Size (Heating)	0.052	0.052	0.055
COMPRESSOR			
Quantity / Type / Stage	2 / Scroll / 1	2 / Scroll / 1	2 / Scroll / 1
Compressor RLA / LRA	13.1 / 83.1	6.1 / 41.0	4.4 / 33.0
ELECTRICAL DATA			
Voltage / Phase / Frequency	208-230 / 3 / 60	460 / 3 / 60	575 / 3 / 60
Indoor Blower HP / FLA	1.5 / 5.0	1.5 / 2.5	2 / 2.5
Outdoor Fan HP / FLA	¼ / 1.4	¼ / 0.8	¼ / 0.6
Total Unit Amps	36.9	17.7	12.5
Min. Circuit Ampacity ¹	40	19	13.6
Max. Overcurrent Protection (amps) ²	50	25	15
Entrance Power Supply & Control Voltage	Locating Dimple		
OPERATING WEIGHT (LBS)	1135	1135	1135
SHIP WEIGHT (LBS)	1175	1175	1175

¹ Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

² May use fuses or HACR-type circuit breakers of the same size as noted.

Note: Always check the S&R plate for electrical data on the unit being installed.

PRODUCT SPECIFICATIONS — 8½ TONS

	CPH102 ***3B***	CPH102 ***4B***	CPH102 ***7B***
COOLING CAPACITY			
Total, BTU/h	102,000	102,000	102,000
Sensible BTU/h	73,440	73,440	73,440
EER / IEER	11.1 / 11.2	11.1 / 11.2	11.1 / 11.2
Decibels	83	83	83
ARI Reference #s	3620224	3620224	3620224
HEATING CAPACITY			
BTU/h (47°F)	102,000	102,000	102,000
COP (47°F)	3.4	3.4	3.4
BTU/h (17°F)	55,500	55,500	55,500
COP (17°F)	2.25	2.25	2.25
EVAPORATOR MOTOR / COIL			
Motor Type	Belt Drive	Belt Drive	Belt Drive
Indoor Nominal CFM	3,400	3,400	3,400
Indoor Motor FLA (Cooling)	7.8	3.9	2.3
Horsepower - RPM	1725	1725	1725
Piston Size (Cooling)	0.08	0.08	0.08
Filter Size (Qty)	(4) 16" x 24" x 2"	(4) 16" x 24" x 2"	(4) 16" x 24" x 2"
Drain Size (NPT)	3/4"	3/4"	3/4"
R-410A Refrigerant Charge Cir #1 & #2 (oz.)	205 / 205	205 / 205	205 / 205
Evaporator Coil Face Area (ft²)	10.2	10.2	10.2
Rows Deep / Fins per Inch	4 / 14	4 / 14	4 / 14
BELT DRIVE EVAP FAN DATA			
# of Wheels (D x W)	1 (15" x 12")	1 (15" x 12")	1 (15" x 12")
Motor Sheave / Blower Sheave	VL40 / AK74	VL40 / AK74	VL40 / AK74
Belt	AX51	AX51	AX51
CONDENSER FAN / COIL			
Quantity of Condenser Fan Motors	2	2	2
Horsepower - RPM	1/4" - 1,090	1/4" - 890	1/4" - 1,075
Fan Diameter / # Fan Blades	22 / 4	22 / 4	22 / 4
Outdoor Nominal CFM	7,600	7,600	7,600
Face Area (ft²)	16.19	16.19	16.19
Rows Deep / Fins per Inch	2 / 22	2 / 22	2 / 22
Piston Size (Heating)	0.059	0.059	0.059
COMPRESSOR			
Quantity / Type	2 / Scroll	2 / Scroll	2 / Scroll
Stage	1	1	1
Compressor RLA / LRA ea.	14.5 / 98	6.3 / 55	6.0 / 41
ELECTRICAL DATA / STATIC			
Voltage / Phase / Frequency	230 / 3 / 60	460 / 3 / 60	575 / 3 / 60
Standard Max Static	1"	1	1
Outdoor Fan FLA ea.	1.4	0.8	0.6
Total Unit Amps	39.6	18.1	15.5
Min. Circuit Ampacity ¹	43.2	19.7	17
Max. Overcurrent Protection (amps) ²	50	25	20
Entrance Power Supply & Control Voltage	Locating Dimple	Locating Dimple	Locating Dimple
OPERATING WEIGHT (LBS)	1285	1285	1285
SHIP WEIGHT (LBS)	1310	1310	1310

¹ Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

² May use fuses or HACR-type circuit breakers of the same size as noted.

Note: Always check the S&R plate for electrical data on the unit being installed.

PRODUCT SPECIFICATIONS — 10 TONS

	CPH120 ***3B***	CPH120 ***4B***	CPH120 ***7B***
COOLING CAPACITY			
Total BTU/h	118,000	118,000	118,000
Sensible BTU/h	87,300	87,300	87,300
EER / IEER	11.5 / 11.5	11.5 / 11.5	11.5 / 11.5
Decibels	83	83	83
HEATING CAPACITY			
BTU/h (47° F)	120,000	120,000	120,000
COP (47°F)	3.4	3.4	3.4
BTU/h (17° F)	56,000	56,000	56,000
COP (17°F)	2.4	2.4	2.4
EVAPORATOR MOTOR / COIL			
Motor Type	Belt Drive	Belt Drive	Belt Drive
Indoor Nominal CFM	4,000	4,000	4,000
Indoor motor FLA (Cooling)	7.8	3.9	2.5
Horsepower - RPM	2.0/1725	2.0/1725	2.0/1725
Piston Size (Cooling)	0.086	0.086	0.086
Expansion Device	Orifice	Orifice	Orifice
Filter Size	(4) 16" x 24" x 2"	(4) 16" x 24" x 2"	(4) 16" x 24" x 2"
Drain Size (NPT)	¾"	¾"	¾"
R-410A Refrigerant Charge Cir #1 & #2 (oz.)	225 / 225	225 / 225	225 / 225
Evaporator Coil Face Area (ft ²)	10.2	10.2	10.2
Rows Deep/ Fins per Inch	4 / 14	4 / 14	4 / 14
BELT DRIVE EVAP FAN DATA			
# of Wheels (D x W)	(1) 15" x 15"	(1) 15" x 15"	(1) 15" x 15"
Motor Sheave / Blower Sheave	VL40 / AK74	VL40 / AK74	VL40 / AK74
Belt	AX51	AX51	AX51
CONDENSER FAN / COIL			
Quantity of Condenser Fan Motors	2	2	2
Horsepower - RPM	½ - 1,075	½ - 1,075	½ - 1,125
Fan Diameter / # Fan Blades	22 / 3	22 / 3	22 / 3
Outdoor Nominal CFM	7,200	7,200	7,200
Face Area (ft ²)	32.4	32.4	32.4
# Coils / Rows Deep - Fins per Inch	2 / 2 - 22	2 / 2 - 22	2 / 2 - 22
Piston Size (Heating)	0.064	0.064	0.064
COMPRESSOR			
Quantity / Type / Stage	2 / Scroll / 1	2 / Scroll / 1	2 / Scroll / 1
Compressor RLA / LRA ea.	16 / 110.0	7.8 / 52.0	5.7 / 38.9
ELECTRICAL DATA			
Voltage/Phase/ Frequency	208-230/3/60	460/3/60	575/3/60
Belt-Driven Standard Max Static	1.4	1.4	1.4
Outdoor Fan RLA ea.	2.40	1.20	0.90
Total Unit Amps	45	22	16
Min. Circuit Ampacity ¹	49	24	17
Max. Overcurrent Protection (amps) ²	60	30	20
Entrance Power Supply & Control Voltage	Locating Dimple		
OPERATING WEIGHT (LBS)	1285	1285	1285
SHIP WEIGHT (LBS)	1310	1310	1310

¹ Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

² May use fuses or HACR-type circuit breakers of the same size as noted.

Note: Always check the S&R plate for electrical data on the unit being installed.

PRODUCT SPECIFICATIONS — 12½ TONS

	CPH150XXX 3BXXX	CPH150XXX 4BXXX	CPH150XXX 7BXXX
COOLING CAPACITY			
Total, BTU/h	146,000	146,000	146,000
Sensible BTU/h	102,200	102,200	102,200
EER / IPLV	10.8 / 11.2	10.8 / 11.2	10.8 / 11.2
Decibels	83	83	83
ARI Reference #s	3554114	3554114	3554114
HEATING CAPACITY			
BTU/hr (47°F)	150,000	150,000	150,000
COP (47°F)	3.2	3.2	3.2
BTU/hr (17°F)	82,000	82,000	82,000
COP (17°F)	2.1	2.1	2.1
EVAPORATOR MOTOR / COIL			
Motor Type (Belt Drive)	AX49	AX49	AX49
Indoor Nominal CFM	5,000	5,000	5,000
Indoor Motor FLA (Cooling)	9.4	4.7	4.2
Horsepower - RPM	3.0 - 1,725	3.0 - 1,725	3.0 - 1,725
Piston Size (Cooling)	0.096	0.096	0.096
Filter Size (Qty)	(4) 20" x 25" x 2"	(4) 20" x 25" x 2"	(4) 20" x 25" x 2"
Drain Size (NPT)	¾"	¾"	¾"
R-410A Refrigerant Charge Cir #1 & #2 (oz.)	290 / 290	290 / 290	290 / 290
Evaporator Coil Face Area (ft²)	14.7	14.7	14.7
Rows Deep / Fins per Inch	4 / 15	4 / 15	4 / 15
# of Wheels (D x W)	(1) 15" x 15"	(1) 15" x 15"	(1) 15" x 15"
Motor Sheave / Blower Sheave	VL40 / AK66	VL40 / AK66	VL40 / AK66
CONDENSER FAN / COIL			
Quantity of condenser Fan Motors	2	2	2
Horsepower - RPM	⅓ - 1,075	⅓ - 1,075	⅓ - 1,075
Fan Diameter / # Fan Blades	22/ 3	22/ 3	22/ 3
Outdoor Nominal CFM	7,200	7,200	7,200
Face Area (ft²)	35.3	35.3	35.3
Rows Deep / Fins per Inch	2/3 rows 15 fpi	2/3 rows 15 fpi	2/3 rows 15 fpi
Piston Size (Heating)	0.067	0.067	0.067
COMPRESSOR			
Quantity / Stage	2 / Single	2 / Single	2 / Single
Type	Scroll	Scroll	Scroll
Compressor RLA / LRA ea.	22.4 / 149	10.6 / 75	7.7 / 54
ELECTRICAL DATA / STATIC			
Voltage / Phase / Frequency	208-230/ 3/ 60	460/ 3/ 60	575/ 3/ 60
Standard Max Static	1.4"	1.4"	1.4"
Outdoor Fan FLA ea.	2.4	1.2	0.9
Total Unit Amps	59	28	21.4
Min. Circuit Ampacity ¹	65	31	23
Max. Overcurrent Protection (amps) ²	80	40	30
Entrance Power Supply	Locating	Locating	Locating
Entrance Control Voltage	Dimple	Dimple	Dimple
OPERATING WEIGHT (LBS)	1325	1325	1325
SHIP WEIGHT (LBS)	1350	1350	1350

¹ Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

² May use fuses or HACR-type circuit breakers of the same size as noted.

Note: Always check the S&R plate for electrical data on the unit being installed.

EXPANDED HEATING DATA

CPH090

	OUTDOOR AMBIENT TEMPERATURE																	
	65	60	55	50	47	45	40	35	30	25	20	17	15	10	5	0	-5	-10
MBh	114.4	108.3	101.9	95.3	91.0	88.2	81.9	75.5	70.5	65.0	59.9	56.6	54.5	48.9	43.3	37.8	32.2	26.4
T/R	35.3	33.4	31.5	29.4	28.1	27.2	25.3	23.3	21.7	20.1	18.5	17.5	16.8	15.1	13.4	11.7	9.9	8.2
kW	8.22	8.06	7.91	7.75	7.66	7.59	7.44	7.29	6.93	6.78	6.63	6.54	6.49	6.33	6.19	6.04	5.89	5.74
Amps	30.2	28.4	26.9	25.6	24.9	24.5	23.4	22.5	21.8	21.1	20.3	20.0	19.8	19.1	18.2	17.4	16.5	15.4
COP	4.07	3.93	3.77	3.60	3.48	3.40	3.22	3.03	2.98	2.81	2.64	2.53	2.46	2.26	2.05	1.83	1.60	1.35
HI PR	424	406	390	373	365	358	344	330	316	302	290	283	278	267	257	246	238	229
LO PR	134	124	117	107	101	97	89	80	72	64	56	52	51	43	37	31	27	21

CPH102

	OUTDOOR AMBIENT TEMPERATURE																	
	65	60	55	50	47	45	40	35	30	25	20	17	15	10	5	0	-5	-10
MBh	128.2	121.4	114.2	106.8	102.0	98.8	91.8	84.7	69.2	63.8	58.8	55.5	53.4	48.0	42.5	37.1	31.6	25.9
T/R	34.9	33.1	31.1	29.1	27.8	26.9	25.0	23.1	18.8	17.4	16.0	15.1	14.6	13.1	11.6	10.1	8.6	7.1
kW	9.34	9.17	8.99	8.82	8.72	8.64	8.48	8.30	7.8	7.7	7.5	7.4	7.3	7.2	7.0	6.9	6.7	6.5
Amps	37.6	35.2	33.2	31.6	30.6	30.1	28.7	27.5	26.6	25.6	24.6	24.2	23.9	23.0	21.8	20.8	19.6	18.2
COP	4.02	3.87	3.72	3.54	3.42	3.35	3.17	2.98	2.6	2.4	2.3	2.2	2.1	2.0	1.8	1.6	1.4	1.2
EER	13.7	13.2	12.7	12.1	11.7	11.4	10.8	10.2	8.8	8.3	7.8	7.5	7.3	6.7	6.1	5.4	4.7	4.0
HI PR	419	401	386	369	360	354	340	326	312.5	298.4	286.5	279.7	274.6	264.2	254.1	243.6	235.0	226.7
LO PR	136	126	118	108	103	99	91	81	73	65	57	53	51	43	37	32	28	22

CPH120

	OUTDOOR AMBIENT TEMPERATURE																	
	65	60	55	50	47	45	40	35	30	25	20	17	15	10	5	0	-5	-10
MBh	150.8	142.8	134.4	125.6	120.0	116.3	108.0	99.6	87.7	81.0	74.6	70.4	67.8	60.8	53.9	47.0	40.1	32.9
T/R	34.9	33.1	31.1	29.1	27.8	26.9	25.0	23.1	20.3	18.7	17.3	16.3	15.7	14.1	12.5	10.9	9.3	7.6
kW	10.70	10.50	10.31	10.11	10.00	9.92	9.73	9.54	8.65	8.47	8.30	8.20	8.13	7.95	7.78	7.61	7.44	7.27
Amps	41.3	38.9	36.9	35.3	34.3	33.8	32.4	31.2	30.2	29.3	28.3	27.8	27.6	26.6	25.4	24.4	23.3	21.8
COP	4.13	3.98	3.82	3.64	3.51	3.43	3.25	3.06	2.97	2.80	2.63	2.51	2.44	2.24	2.03	1.81	1.58	1.32
HI PR	439	421	405	387	378	371	356	342	328	313	301	293	288	277	266	256	246	238
LO PR	133	123	115	106	100	96	89	79	71	64	56	52	50	42	37	31	27	21

CPH150

	OUTDOOR AMBIENT TEMPERATURE																	
	65	60	55	50	47	45	40	35	30	25	20	17	15	10	5	0	-5	-10
MBh	188.6	178.5	168.0	157.1	150.0	145.4	135.0	124.5	102.2	94.3	86.8	82.0	79.0	70.8	62.8	54.8	46.7	38.3
T/R	41.6	39.4	37.0	34.6	33.1	32.0	29.8	27.4	22.5	20.8	19.1	18.1	17.4	15.6	13.8	12.1	10.3	8.4
KW	14.59	14.30	14.00	13.71	13.54	13.42	13.13	12.84	12.18	11.89	11.62	11.45	11.34	11.05	10.78	10.50	10.21	9.94
AMPS	58.8	55.0	52.0	49.3	47.8	47.0	44.8	42.9	41.4	39.9	38.3	37.6	37.2	35.7	33.8	32.3	30.4	28.1
COP	3.78	3.65	3.51	3.35	3.24	3.17	3.01	2.84	2.46	2.32	2.19	2.10	2.04	1.88	1.71	1.53	1.34	1.13
HI PR	471	452	434	415	405	398	382	367	351	336	322	315	309	297	286	274	264	255
LO PR	129	120	113	103	98	94	86	77	69	62	54	51	49	41	36	30	26	21

Above information is for nominal CFM and 70 degree indoor dry bulb. Instantaneous capacity listed.

High pressure measured at liquid line access fitting; Low pressure measured at compressor suction access fitting.

Amps = unit amps (comp.+fans)

kW = Total system power

EXPANDED COOLING DATA — 7½ TONS

IDB		OUTDOOR AMBIENT TEMPERATURE																								
		65				75				85				95				105				115				
		59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	
		ENTERING INDOOR WET BULB TEMPERATURE																								
3375		MBh	88.2	91.4	100.2	-	86.1	89.3	97.8	-	84.1	87.2	95.5	-	82.0	85.0	93.2	-	77.9	80.8	88.5	-	72.2	74.8	82.0	-
		S/T	0.73	0.61	0.42	-	0.76	0.63	0.44	-	0.78	0.65	0.45	-	0.80	0.67	0.47	-	0.83	0.70	0.48	-	0.84	0.70	0.49	-
		ΔT	18	15	12	-	18	15	12	-	18	15	12	-	18	16	12	-	18	15	12	-	17	14	11	-
3000		kW	6.19	6.32	6.50	-	6.64	6.77	6.98	-	7.03	7.17	7.39	-	7.37	7.53	7.76	-	7.67	7.83	8.08	-	7.92	8.09	8.35	-
		Amps	20.4	20.8	21.2	-	21.6	22.0	22.5	-	23.0	23.4	24.0	-	24.1	24.6	25.2	-	25.3	25.8	26.5	-	26.5	27.0	27.7	-
		Hi PR	234	252	266	-	262	282	298	-	298	321	339	-	340	366	386	-	382	411	434	-	422	454	480	-
		Lo PR	108	115	126	-	114	122	133	-	119	126	138	-	125	133	145	-	131	139	152	-	135	144	157	-
70		MBh	85.6	88.7	97.2	-	83.6	86.7	95.0	-	81.6	84.6	92.7	-	79.7	82.6	90.5	-	75.7	78.4	85.9	-	70.1	72.6	79.6	-
		S/T	0.70	0.58	0.40	-	0.72	0.61	0.42	-	0.74	0.62	0.43	-	0.77	0.64	0.44	-	0.80	0.66	0.46	-	0.80	0.67	0.46	-
		ΔT	18	16	12	-	19	16	12	-	19	16	12	-	19	16	12	-	18	16	12	-	17	15	11	-
2400		kW	6.15	6.27	6.45	-	6.59	6.72	6.92	-	6.98	7.12	7.34	-	7.32	7.47	7.70	-	7.61	7.77	8.01	-	7.86	8.03	8.28	-
		Amps	20.3	20.6	21.1	-	21.4	21.8	22.4	-	22.8	23.2	23.8	-	24.0	24.4	25.0	-	25.1	25.6	26.3	-	26.3	26.8	27.5	-
		Hi PR	231	249	263	-	260	279	295	-	295	318	336	-	336	362	382	-	378	407	430	-	418	450	475	-
		Lo PR	107	114	124	-	113	120	132	-	118	125	137	-	124	132	144	-	130	138	150	-	134	143	156	-
75		MBh	79.0	81.9	89.7	-	77.2	80.0	87.7	-	75.4	78.1	85.6	-	73.5	76.2	83.5	-	69.8	72.4	79.3	-	64.7	67.1	73.5	-
		S/T	0.67	0.56	0.39	-	0.70	0.58	0.40	-	0.72	0.60	0.41	-	0.74	0.62	0.43	-	0.77	0.64	0.44	-	0.77	0.65	0.45	-
		ΔT	20	18	13	-	21	18	14	-	21	18	14	-	21	18	14	-	21	18	13	-	19	17	13	-
2400		kW	6.01	6.13	6.31	-	6.44	6.57	6.76	-	6.81	6.95	7.16	-	7.15	7.29	7.52	-	7.43	7.58	7.82	-	7.67	7.83	8.08	-
		Amps	19.9	20.2	20.7	-	21.0	21.4	21.9	-	22.3	22.7	23.3	-	23.5	23.9	24.5	-	24.6	25.1	25.7	-	25.7	26.2	26.9	-
		Hi PR	224	242	255	-	252	271	286	-	286	308	326	-	326	351	371	-	367	395	417	-	406	436	461	-
		Lo PR	104	111	121	-	110	117	128	-	114	121	133	-	120	128	139	-	126	134	146	-	130	138	151	-

3375		MBh	89.7	92.3	100.0	107.3	87.6	90.2	97.6	104.8	85.5	88.0	95.3	102.3	83.4	85.9	93.0	99.8	79.3	81.6	88.3	94.8	73.4	75.6	81.8	87.8
		S/T	0.83	0.75	0.56	0.36	0.86	0.77	0.58	0.38	0.89	0.79	0.60	0.39	0.91	0.82	0.62	0.40	0.95	0.85	0.64	0.41	0.96	0.86	0.65	0.42
		ΔT	20	19	15	11	21	19	16	11	21	19	16	11	21	19	16	11	20	19	15	11	19	18	14	10
		kW	6.24	6.36	6.55	6.75	6.69	6.82	7.03	7.25	7.08	7.23	7.45	7.69	7.43	7.59	7.83	8.07	7.73	7.89	8.14	8.40	7.99	8.16	8.42	8.69
75		Amps	20.5	20.9	21.4	22.0	21.7	22.1	22.7	23.3	23.1	23.5	24.1	24.8	24.3	24.8	25.4	26.2	25.5	26.0	26.7	27.5	26.7	27.2	27.9	28.8
		Hi PR	236	254	268	280	265	285	301	314	301	324	342	357	343	369	390	407	386	415	439	458	427	459	485	506
		Lo PR	109	116	127	135	116	123	134	143	120	128	139	149	126	134	146	156	132	141	154	163	137	145	159	169
3000		MBh	87.1	89.7	97.0	104.1	85.1	87.6	94.8	101.7	83.0	85.5	92.5	99.3	81.0	83.4	90.3	96.9	77.0	79.2	85.8	92.0	71.3	73.4	79.4	85.3
		S/T	0.79	0.71	0.54	0.35	0.82	0.74	0.56	0.36	0.84	0.76	0.57	0.37	0.87	0.78	0.59	0.38	0.90	0.81	0.61	0.39	0.91	0.82	0.62	0.40
		ΔT	21	20	16	11	21	20	16	11	21	20	16	11	22	20	16	11	21	20	16	11	20	18	15	10
		kW	6.19	6.32	6.50	6.70	6.64	6.77	6.98	7.19	7.03	7.17	7.39	7.63	7.38	7.53	7.76	8.01	7.67	7.83	8.08	8.34	7.92	8.09	8.35	8.62
75		Amps	20.4	20.8	21.2	21.8	21.6	22.0	22.5	23.1	23.0	23.4	24.0	24.7	24.1	24.6	25.2	26.0	25.3	25.8	26.5	27.3	26.5	27.0	27.7	28.6
		Hi PR	234	252	266	277	262	282	298	311	298	321	339	354	340	366	386	403	382	411	434	453	422	454	480	501
		Lo PR	108	115	126	134	114	122	133	141	119	126	138	147	125	133	145	154	131	139	152	162	135	144	157	167
2400		MBh	80.4	82.7	89.6	96.1	78.5	80.8	87.5	93.9	76.6	78.9	85.4	91.7	74.8	77.0	83.3	89.4	71.0	73.1	79.2	85.0	65.8	67.7	73.3	78.7
		S/T	0.77	0.69	0.52	0.33	0.79	0.71	0.54	0.35	0.81	0.73	0.55	0.35	0.84	0.75	0.57	0.37	0.87	0.78	0.59	0.38	0.88	0.79	0.60	0.38
		ΔT	24	22	18	12	24	22	18	12	24	22	18	12	24	22	18	13	24	22	18	12	22	20	17	12
		kW	6.06	6.18	6.36	6.55	6.49	6.62	6.82	7.02	6.87	7.01	7.22	7.45	7.20	7.35	7.58	7.82	7.49	7.65	7.88	8.13	7.73	7.90	8.15	8.41
75		Amps	20.0	20.3	20.8	21.4	21.2	21.5	22.0	22.7	22.5	22.9	23.5	24.1	23.6	24.1	24.7	25.4	24.8	25.3	25.9	26.7	25.9	26.4	27.1	27.9
		Hi PR	227	244	258	269	254	274	289	302	289	311	329	343	330	355	375	391	371	399	421	439	410	441	466	486
		Lo PR	105	112	122	130	111	118	129	137	115	123	134	143	121	129	141	150	127	135	147	157	131	140	153	162

IDB = Entering Indoor Dry Bulb Temperature
 High and low pressures are measured at the liquid and suction service access fittings.
 Shaded area reflects ACCA (TVA) conditions
 kW = Total system power
 Amps = outdoor unit amps (comp.-fan)

EXPANDED COOLING DATA — 7½ TONS (CONT.)

IDB	AIRFLOW	OUTDOOR AMBIENT TEMPERATURE																							
		65				75				85				95				105				115			
		59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71
80	MBh	91.3	93.3	99.7	106.5	89.2	91.1	97.3	104.1	87.0	88.9	95.0	101.6	84.9	86.8	92.7	99.1	80.7	82.4	88.1	94.1	74.7	76.4	81.6	87.2
	S/T	0.91	0.86	0.70	0.52	0.95	0.89	0.72	0.54	1.00	0.91	0.74	0.55	1.00	0.94	0.77	0.57	1.00	1.00	0.79	0.59	1.00	1.00	0.80	0.60
	ΔT	23	22	19	15	24	22	19	15	23	22	19	15	22	22	19	15	22	22	19	15	20	21	18	14
	kW	6.29	6.41	6.60	6.80	6.74	6.88	7.08	7.30	7.14	7.29	7.51	7.75	7.49	7.65	7.89	8.14	7.79	7.96	8.21	8.47	8.05	8.22	8.48	8.76
	Amps	20.7	21.0	21.5	22.1	21.9	22.3	22.8	23.5	23.3	23.7	24.3	25.0	24.5	24.9	25.6	26.3	25.7	26.2	26.9	27.7	26.9	27.4	28.1	29.0
	Hi PR	238	257	271	283	268	288	304	317	304	328	346	361	347	373	394	411	390	420	443	462	431	464	490	511
	Lo PR	110	118	128	137	117	124	136	144	121	129	141	150	127	136	148	158	134	142	155	165	138	147	160	171
	MBh	88.6	90.6	96.8	103.4	86.6	88.5	94.5	101.0	84.5	86.3	92.3	98.6	82.4	84.2	90.0	96.2	78.3	80.0	85.5	91.4	72.5	74.1	79.2	84.7
	S/T	0.87	0.82	0.67	0.50	0.90	0.85	0.69	0.52	0.93	0.87	0.71	0.53	0.96	0.90	0.73	0.55	0.99	0.93	0.76	0.57	1.00	0.94	0.76	0.57
	ΔT	24	23	20	16	24	23	20	16	24	23	20	16	24	23	20.0	16	24	23	20	16	22	21	19	15
kW	6.24	6.36	6.55	6.75	6.69	6.82	7.03	7.25	7.08	7.23	7.45	7.69	7.43	7.59	7.83	8.07	7.73	7.89	8.14	8.40	7.99	8.16	8.42	8.69	
Amps	20.5	20.9	21.4	22.0	21.7	22.1	22.7	23.3	23.1	23.5	24.1	24.8	24.3	24.8	25.4	26.2	25.5	26.0	26.7	27.5	26.7	27.2	27.9	28.8	
Hi PR	236	254	268	280	265	285	301	314	301	324	342	357	343	369	390	407	386	415	439	458	427	459	485	506	
Lo PR	109	116	127	135	116	123	134	143	120	128	139	149	126	134	147	156	132	141	154	164	137	145	159	169	
MBh	81.8	83.6	89.3	95.5	79.9	81.6	87.2	93.2	78.0	79.7	85.1	91.0	76.1	77.8	83.1	88.8	72.3	73.9	78.9	84.4	67.0	68.4	73.1	78.1	
S/T	0.84	0.79	0.64	0.48	0.87	0.82	0.67	0.50	0.89	0.84	0.68	0.51	0.92	0.86	0.70	0.53	0.96	0.90	0.73	0.55	0.97	0.91	0.74	0.55	
ΔT	26	25	22	18	27	26	22	18	27	26	22	18	27	26	22	18	27	25	22	18	25	24	21	16	
kW	6.10	6.22	6.40	6.60	6.54	6.67	6.87	7.08	6.92	7.06	7.28	7.50	7.26	7.41	7.64	7.88	7.55	7.71	7.95	8.20	7.80	7.96	8.21	8.48	
Amps	20.1	20.5	21.0	21.5	21.3	21.7	22.2	22.8	22.6	23.1	23.6	24.3	23.8	24.2	24.9	25.6	25.0	25.4	26.1	26.9	26.1	26.6	27.3	28.1	
Hi PR	229	246	260	271	257	277	292	305	292	315	332	346	333	358	378	395	375	403	426	444	414	445	470	490	
Lo PR	106	113	123	131	112	119	130	139	116	124	135	144	122	130	142	151	128	136	149	159	133	141	154	164	

85	MBh	92.9	94.7	99.2	105.8	90.7	92.5	96.8	103.3	88.6	90.3	94.5	100.9	86.4	88.1	92.2	98.4	82.1	83.7	87.6	93.5	76.0	77.5	81.2	86.6
	S/T	0.96	0.92	0.83	0.68	0.99	0.96	0.86	0.70	1.00	0.98	0.89	0.72	1.00	1.00	0.92	0.74	1.00	1.00	0.95	0.77	1.00	1.00	0.96	0.78
	ΔT	24	24	23	20	25	24	23	20	24	24	23	20	24	24	23	20	22	23	23	20	21	21	21	18
	kW	6.33	6.46	6.65	6.85	6.79	6.93	7.14	7.36	7.19	7.34	7.57	7.81	7.55	7.71	7.95	8.20	7.85	8.02	8.27	8.54	8.12	8.29	8.55	8.83
	Amps	20.8	21.2	21.7	22.3	22.0	22.4	23.0	23.6	23.4	23.9	24.5	25.2	24.7	25.1	25.8	26.5	25.9	26.4	27.1	27.9	27.1	27.6	28.4	29.2
	Hi PR	241	259	274	285	270	291	307	320	307	331	349	364	350	377	398	415	394	424	448	467	435	468	495	516
	Lo PR	112	119	130	138	118	125	137	146	122	130	142	152	129	137	149	159	135	143	157	167	139	148	162	173
	MBh	90.2	91.9	96.3	102.7	88.1	89.8	94.0	100.3	86.0	87.6	91.8	97.9	83.9	85.5	89.6	95.5	79.7	81.2	85.1	90.8	73.8	75.2	78.8	84.1
	S/T	0.91	0.88	0.80	0.65	0.95	0.91	0.82	0.67	0.97	0.94	0.85	0.69	1.00	0.97	0.87	0.71	1.00	1.00	0.91	0.74	1.00	1.00	0.91	0.74
	ΔT	25	25	23	20	26	25	24	21	26	25	24	21	26	25	24	21	24	25	24	20	23	23	22	19
kW	6.29	6.41	6.60	6.80	6.74	6.88	7.08	7.30	7.14	7.29	7.51	7.75	7.49	7.65	7.89	8.14	7.79	7.96	8.21	8.47	8.05	8.22	8.48	8.76	
Amps	20.7	21.0	21.5	22.1	21.9	22.3	22.8	23.5	23.3	23.7	24.3	25.0	24.5	24.9	25.6	26.3	25.7	26.2	26.9	27.7	26.9	27.4	28.1	29.0	
Hi PR	238	257	271	283	268	288	304	317	304	328	346	361	347	373	394	411	390	420	443	462	431	464	490	511	
Lo PR	110	118	128	137	117	124	136	144	121	129	141	150	127	136	148	158	134	142	155	165	138	147	160	171	
MBh	83.2	84.8	88.9	94.8	81.3	82.9	86.8	92.6	79.4	80.9	84.7	90.4	77.4	78.9	82.7	88.2	73.6	75.0	78.5	83.8	68.1	69.4	72.7	77.6	
S/T	0.88	0.85	0.77	0.62	0.91	0.88	0.80	0.65	0.94	0.90	0.82	0.66	0.97	0.93	0.84	0.68	1.00	0.97	0.87	0.71	1.00	0.98	0.88	0.71	
ΔT	28	28	26	23	28	28	26	23	29	28	26	23	29	28	27	23	28	28	26	23	26	26	25	21	
kW	6.15	6.27	6.45	6.65	6.59	6.72	6.92	7.13	6.97	7.12	7.33	7.56	7.32	7.47	7.70	7.94	7.61	7.77	8.01	8.27	7.86	8.02	8.28	8.55	
Amps	20.3	20.6	21.1	21.7	21.4	21.8	22.3	23.0	22.8	23.2	23.8	24.5	24.0	24.4	25.0	25.8	25.1	25.6	26.3	27.1	26.3	26.8	27.5	28.4	
Hi PR	231	249	263	274	260	279	295	308	295	318	335	350	336	362	382	399	378	407	430	448	418	450	475	495	
Lo PR	107	114	124	133	113	120	131	140	118	125	137	146	124	131	144	153	130	138	150	160	134	143	156	166	

IDB = Entering Indoor Dry Bulb Temperature
 High and low pressures are measured at the liquid and suction service access fittings.
 Shaded area reflects AHRl (TVA) conditions
 kW = Total system power
 Amps = outdoor unit amps (comp-hfan)

EXPANDED COOLING DATA — 8½ TONS

IDB	AIRFLOW	OUTDOOR AMBIENT TEMPERATURE																								
		65				75				85				95				105				115				
		59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	
70	3820	MBh	100.0	103.6	113.5	-	97.6	101.2	110.9	-	95.3	98.8	108.2	-	93.0	96.4	105.6	-	88.3	91.6	100.3	-	81.8	84.8	92.9	-
		S/T	0.73	0.61	0.42	-	0.75	0.63	0.44	-	0.77	0.64	0.45	-	0.80	0.67	0.46	-	0.83	0.69	0.48	-	0.83	0.70	0.48	-
		ΔT	17	15	11	-	18	15	12	-	18	15	12	-	18	15	12	-	18	15	12	-	16	14	11	-
		kW	7.18	7.32	7.53	-	7.69	7.84	8.07	-	8.13	8.29	8.54	-	8.52	8.69	8.96	-	8.85	9.03	9.31	-	9.14	9.33	9.62	-
		Amps	22.7	23.1	23.7	-	24.1	24.5	25.1	-	25.6	26.1	26.8	-	27.0	27.5	28.3	-	28.4	29.0	29.7	-	29.8	30.3	31.2	-
		HI PR	238	256	270	-	267	287	303	-	303	326	345	-	345	372	392	-	389	418	442	-	429	462	488	-
	3400	LO PR	106	113	123	-	112	119	130	-	116	124	135	-	122	130	142	-	128	136	149	-	133	141	154	-
		MBh	97.0	100.6	110.2	-	94.8	98.2	107.6	-	92.5	95.9	105.1	-	90.3	93.6	102.5	-	85.8	88.9	97.4	-	79.4	82.3	90.2	-
		S/T	0.69	0.58	0.40	-	0.72	0.60	0.42	-	0.74	0.62	0.43	-	0.76	0.63	0.44	-	0.79	0.66	0.46	-	0.80	0.66	0.46	-
		ΔT	18	16	12	-	18	16	12	-	18	16	12	-	19	16	12	-	18	16	12	-	17	15	11	-
		kW	7.13	7.27	7.48	-	7.63	7.78	8.01	-	8.07	8.23	8.47	-	8.45	8.63	8.89	-	8.78	8.96	9.24	-	9.07	9.25	9.54	-
		Amps	22.5	22.9	23.5	-	23.9	24.3	24.9	-	25.5	26.0	26.6	-	26.8	27.3	28.1	-	28.2	28.7	29.5	-	29.5	30.1	30.9	-
2980	HI PR	235	253	267	-	264	284	300	-	300	323	341	-	342	368	389	-	385	414	437	-	425	457	483	-	
	LO PR	105	112	122	-	111	118	129	-	115	123	134	-	121	129	141	-	127	135	147	-	131	140	152	-	
	MBh	89.6	92.8	101.7	-	87.5	90.7	99.3	-	85.4	88.5	97.0	-	83.3	86.4	94.6	-	79.2	82.0	89.9	-	73.3	76.0	83.3	-	
	S/T	0.67	0.56	0.39	-	0.69	0.58	0.40	-	0.71	0.59	0.41	-	0.73	0.61	0.42	-	0.76	0.64	0.44	-	0.77	0.64	0.44	-	
	ΔT	18	16	12	-	19	16	12	-	19	16	12	-	19	16	12	-	19	16	12	-	17	15	11	-	
	Amps	6.98	7.11	7.31	-	7.46	7.61	7.83	-	7.89	8.04	8.28	-	8.26	8.43	8.68	-	8.58	8.75	9.02	-	8.85	9.04	9.31	-	
75	HI PR	228	246	259	-	256	276	291	-	291	313	331	-	332	357	377	-	373	402	424	-	412	444	469	-	
	LO PR	102	108	118	-	108	114	125	-	112	119	130	-	117	125	136	-	123	131	143	-	127	135	148	-	
	MBh	101.6	104.7	113.3	121.6	99.3	102.2	110.6	118.8	96.9	99.8	108.0	115.9	94.6	97.4	105.4	113.1	89.8	92.5	100.1	107.4	83.2	85.7	92.7	99.5	
	S/T	0.83	0.74	0.56	0.36	0.86	0.77	0.58	0.37	0.88	0.79	0.59	0.38	0.91	0.81	0.61	0.39	0.94	0.84	0.64	0.41	0.95	0.85	0.64	0.41	
	ΔT	20	19	15	11	20	19	15	11	20	19	15	11	21	19	16	11	20	19	15	11	19	17	14	10	
	kW	7.24	7.38	7.59	7.81	7.74	7.90	8.13	8.37	8.19	8.36	8.61	8.87	8.58	8.76	9.03	9.31	8.92	9.10	9.38	9.68	9.21	9.40	9.69	10.00	
3820	Amps	22.8	23.3	23.8	24.5	24.2	24.7	25.3	26.0	25.8	26.3	27.0	27.8	27.2	27.8	28.5	29.4	28.6	29.2	30.0	30.9	30.0	30.6	31.4	32.4	
	HI PR	240	258	273	284	269	290	306	319	306	330	348	363	349	375	396	414	392	422	446	465	434	467	493	514	
	LO PR	107	114	124	132	113	120	131	140	118	125	137	145	123	131	143	153	129	138	150	160	134	142	155	166	
	MBh	98.7	101.6	110.0	118.0	96.4	99.2	107.4	115.3	94.1	96.9	104.9	112.5	91.8	94.5	102.3	109.8	87.2	89.8	97.2	104.3	80.8	83.2	90.0	96.6	
	S/T	0.79	0.70	0.53	0.34	0.82	0.73	0.55	0.36	0.84	0.75	0.57	0.36	0.86	0.77	0.58	0.38	0.90	0.80	0.61	0.39	0.90	0.81	0.61	0.39	
	ΔT	21	19	16	11	21	20	16	11	21	20	16	11	21	20	16	11	21	19	16	11	20	18	15	10	
3400	kW	7.19	7.32	7.53	7.75	7.69	7.84	8.07	8.31	8.13	8.29	8.54	8.80	8.52	8.69	8.96	9.24	8.85	9.03	9.31	9.60	9.14	9.33	9.62	9.92	
	Amps	22.7	23.1	23.7	24.3	24.1	24.5	25.1	25.9	25.7	26.1	26.8	27.6	27.0	27.6	28.3	29.1	28.4	29.0	29.7	30.7	29.8	30.4	31.2	32.2	
	HI PR	238	256	270	282	267	287	303	316	303	326	345	359	345	372	393	409	389	418	442	461	429	462	488	509	
	LO PR	106	113	123	131	112	119	130	139	116	124	135	144	122	130	142	151	128	136	149	159	133	141	154	164	
	MBh	91.1	93.8	101.5	108.9	89.0	91.6	99.1	106.4	86.8	89.4	96.8	103.9	84.7	87.2	94.4	101.3	80.5	82.9	89.7	96.3	74.6	76.8	83.1	89.2	
	S/T	0.76	0.68	0.51	0.33	0.79	0.70	0.53	0.34	0.81	0.72	0.55	0.35	0.83	0.75	0.56	0.36	0.86	0.77	0.59	0.38	0.87	0.78	0.59	0.38	
2980	ΔT	21	20	16	11	22	20	16	11	22	20	16	11	22	20	16	11	21	20	16	11	20	18	15	10	
	kW	7.03	7.16	7.37	7.58	7.52	7.66	7.89	8.12	7.95	8.10	8.34	8.60	8.32	8.49	8.75	9.02	8.65	8.82	9.09	9.38	8.92	9.11	9.39	9.68	
	Amps	22.2	22.6	23.2	23.8	23.6	24.0	24.6	25.3	25.1	25.6	26.2	27.0	26.4	26.9	27.7	28.5	27.8	28.3	29.1	30.0	29.1	29.7	30.5	31.4	
	HI PR	231	248	262	273	259	278	294	307	294	317	334	349	335	361	381	397	377	406	428	447	416	448	473	494	
	LO PR	103	109	119	127	109	116	126	134	113	120	131	140	119	126	138	147	124	132	144	154	129	137	149	159	
	MBh	88.0	90.8	98.6	106.4	85.9	88.7	96.5	104.3	83.8	86.6	94.4	102.2	81.7	84.5	92.3	100.1	79.6	82.4	90.2	98.0	77.5	80.3	88.1	95.9	

IDB = Entering Indoor Dry Bulb Temperature
 High and low pressures are measured at the liquid and suction service access fittings.
 Shaded area reflects ACCA (ITVA) conditions
 kW = Total system power
 Amps = outdoor unit amps (comp.+fan)

EXPANDED COOLING DATA — 8½ TONS (CONT.)

IDB	AIRFLOW	OUTDOOR AMBIENT TEMPERATURE																													
		65					75					85					95					105					115				
		59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75
80	3820	MBh	103.5	105.7	112.9	120.7	101.0	103.3	110.3	117.9	98.6	100.8	107.7	115.1	96.2	98.3	105.1	112.3	91.4	93.4	99.8	106.7	84.7	86.5	92.5	98.8					
		S/T	0.91	0.85	0.69	0.52	0.94	0.88	0.72	0.54	0.96	0.90	0.73	0.55	1.00	0.93	0.76	0.57	1.00	0.97	0.79	0.59	1.00	1.00	0.79	0.59					
	ΔT	23	22	19	15	23	22	19	15	23	22	19	15	23	22	19	15	23	22	19	15	20	21	18	14						
	kW	7.29	7.43	7.65	7.87	7.80	7.96	8.19	8.44	8.25	8.42	8.67	8.94	8.65	8.83	9.10	9.38	8.99	9.18	9.46	9.76	9.28	9.48	9.77	10.08						
	Amps	23.0	23.4	24.0	24.7	24.4	24.9	25.5	26.2	26.0	26.5	27.2	28.0	27.4	28.0	28.7	29.6	28.8	29.4	30.2	31.1	30.2	30.8	31.7	32.7						
	HIPR	242	261	276	287	272	293	309	322	309	333	352	367	352	379	400	418	396	427	451	470	438	471	498	519						
	LOPR	108	115	126	134	114	122	133	141	119	126	138	147	125	133	145	154	131	139	152	162	135	144	157	167						
	MBh	100.4	102.6	109.7	117.2	98.1	100.2	107.1	114.5	95.8	97.9	104.6	111.8	93.4	95.5	102.0	109.0	88.8	90.7	96.9	103.6	82.2	84.0	89.8	96.0						
	S/T	0.86	0.81	0.66	0.49	0.90	0.84	0.68	0.51	0.92	0.86	0.70	0.52	0.95	0.89	0.72	0.54	0.98	0.92	0.75	0.56	0.99	0.93	0.76	0.57						
	ΔT	23	22	20	16	24	23	20	16	24	23	20	16	24	23	20	16	24	23	20	16	22	21	18	15						
kW	7.24	7.38	7.59	7.81	7.74	7.90	8.13	8.37	8.19	8.36	8.61	8.87	8.59	8.76	9.03	9.31	8.92	9.11	9.39	9.68	9.21	9.40	9.69	10.00							
Amps	22.8	23.3	23.8	24.5	24.2	24.7	25.3	26.0	25.8	26.3	27.0	27.8	27.2	27.8	28.5	29.4	28.6	29.2	30.0	30.9	30.0	30.6	31.4	32.4							
HIPR	240	258	273	285	269	290	306	319	306	330	348	363	349	375	397	414	393	422	446	465	434	467	493	514							
LOPR	107	114	124	132	113	120	131	140	118	125	137	145	124	131	143	153	129	138	150	160	134	142	155	166							
MBh	92.7	94.7	101.2	108.2	90.5	92.5	98.9	105.7	88.4	90.3	96.5	103.2	86.2	88.1	94.1	100.6	81.9	83.7	89.4	95.6	75.9	77.5	82.8	88.6							
S/T	0.83	0.78	0.64	0.48	0.86	0.81	0.66	0.49	0.89	0.83	0.68	0.51	0.91	0.86	0.70	0.52	0.95	0.89	0.72	0.54	0.96	0.90	0.73	0.55							
ΔT	24	23	20	16	24	23	20	16	24	23	20	16	24	23	20	16	24	23	20	16	22	21	19	15							
kW	7.08	7.22	7.42	7.64	7.57	7.72	7.95	8.18	8.01	8.17	8.41	8.66	8.39	8.56	8.82	9.09	8.71	8.89	9.16	9.45	8.99	9.18	9.46	9.76							
Amps	22.4	22.8	23.3	24.0	23.7	24.2	24.8	25.5	25.3	25.8	26.4	27.2	26.6	27.1	27.9	28.7	28.0	28.5	29.3	30.2	29.3	29.9	30.7	31.7							
HIPR	233	251	265	276	261	281	297	310	297	320	338	352	338	364	385	401	381	410	433	451	421	453	478	499							
LOPR	104	111	121	128	110	117	127	136	114	121	132	141	120	127	139	148	126	134	146	155	130	138	151	161							

85	3820	MBh	105.3	107.3	112.4	119.9	102.8	104.8	109.8	117.1	100.4	102.3	107.1	114.3	97.9	99.8	104.5	111.5	93.0	94.8	99.3	105.9	86.2	87.8	92.0	98.1
		S/T	0.95	0.92	0.83	0.67	0.98	0.95	0.86	0.70	1.00	0.97	0.88	0.71	1.00	1.00	0.91	0.74	1.00	1.00	0.94	0.76	1.00	1.00	0.95	0.77
	ΔT	24	24	22	19	24	24	23	20	24	24	23	20	24	24	23	20	24	23	23	23	19	21	21	18	
	kW	7.34	7.49	7.70	7.93	7.86	8.02	8.25	8.50	8.32	8.48	8.74	9.01	8.72	8.90	9.17	9.45	9.06	9.25	9.53	9.83	9.35	9.55	9.85	10.16	
	Amps	23.2	23.6	24.2	24.8	24.6	25.0	25.7	26.4	26.2	26.7	27.4	28.2	27.6	28.2	28.9	29.8	29.0	29.6	30.4	31.4	30.4	31.1	31.9	32.9	
	HIPR	245	264	278	290	275	296	312	326	313	336	355	370	356	383	404	422	400	431	455	475	442	476	503	524	
	LOPR	109	116	127	135	115	123	134	143	120	128	139	148	126	134	146	156	132	140	153	163	137	145	159	169	
	MBh	102.2	104.2	109.1	116.4	99.8	101.7	106.6	113.7	97.4	99.3	104.0	111.0	95.1	96.9	101.5	108.3	90.3	92.1	96.4	102.9	83.7	85.3	89.3	95.3	
	S/T	0.91	0.87	0.79	0.64	0.94	0.91	0.82	0.66	0.96	0.93	0.84	0.68	0.99	0.96	0.87	0.70	1.00	1.00	0.90	0.73	1.00	1.00	0.91	0.73	
	ΔT	25	25	23	20	25	25	24	20	25	25	24	20	26	26	25	24	21	24	25	23	20	23	23	22	19
kW	7.29	7.43	7.65	7.87	7.80	7.96	8.19	8.44	8.25	8.42	8.67	8.94	8.65	8.83	9.10	9.38	8.99	9.18	9.46	9.76	9.28	9.48	9.77	10.08		
Amps	23.0	23.4	24.0	24.7	24.4	24.9	25.5	26.2	26.0	26.5	27.2	28.0	27.4	28.0	28.7	29.6	28.8	29.4	30.2	31.1	30.2	30.8	31.7	32.7		
HIPR	242	261	276	287	272	293	309	322	309	333	352	367	352	379	400	418	396	427	451	470	438	471	498	519		
LOPR	108	115	126	134	114	122	133	141	119	126	138	147	125	133	145	154	131	139	152	162	135	144	157	167		
MBh	94.3	96.2	100.7	107.4	92.1	93.9	98.4	104.9	89.9	91.7	96.0	102.4	87.7	89.4	93.7	99.9	83.4	85.0	89.0	94.9	77.2	78.7	82.4	87.9		
S/T	0.87	0.84	0.76	0.62	0.91	0.87	0.79	0.64	0.93	0.90	0.81	0.66	0.96	0.92	0.83	0.68	0.99	0.96	0.87	0.70	1.00	0.97	0.87	0.71		
ΔT	25	25	24	20	26	25	24	21	26	25	24	21	26	26	24	21	26	26	24	21	24	24	23	22	19	
kW	7.13	7.27	7.48	7.69	7.63	7.78	8.01	8.25	8.07	8.23	8.47	8.73	8.45	8.62	8.89	9.16	8.78	8.96	9.24	9.52	9.06	9.25	9.54	9.84		
Amps	22.5	22.9	23.5	24.2	23.9	24.3	24.9	25.7	25.5	25.9	26.6	27.4	26.8	27.3	28.1	28.9	28.2	28.7	29.5	30.4	29.5	30.1	30.9	31.9		
HIPR	235	253	267	279	264	284	300	313	300	323	341	356	342	368	388	405	385	414	437	456	425	457	483	504		
LOPR	105	112	122	130	111	118	129	137	115	123	134	142	121	129	141	150	127	135	147	157	131	140	152	162		

IDB = Entering Indoor Dry Bulb Temperature
 High and low pressures are measured at the liquid and suction service access fittings.
 Shaded area reflects AHRI (TVA) conditions
 kW = Total system power
 Amps = outdoor unit amps (comp.+fan)

EXPANDED COOLING DATA — 10 Tons

IDB		OUTDOOR AMBIENT TEMPERATURE																																			
		65						75						85						95						105						115					
		59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79
ENTERING INDOOR WET BULB TEMPERATURE																																					
70	4500	MBh	115.6	119.8	131.3	-	112.9	117.1	128.3	-	110.3	114.3	125.2	-	107.6	111.5	122.1	-	102.2	105.9	116.0	-	94.7	98.1	107.5	-											
		S/T	0.74	0.62	0.43	-	0.77	0.64	0.45	-	0.79	0.66	0.46	-	0.82	0.68	0.47	-	0.85	0.71	0.49	-	0.85	0.71	0.49	-											
		ΔT	18	15	12	-	18	15	12	-	18	15	12	-	18	16	12	-	18	15	12	-	17	14	11	-											
	4000	Hi Pr	246	264	279	-	276	297	313	-	314	337	356	-	357	384	406	-	402	432	457	-	444	478	504	-											
		Lo Pr	107	114	124	-	113	120	131	-	118	125	137	-	124	131	144	-	130	138	150	-	134	143	156	-											
		MBh	112.3	116.4	127.5	-	109.7	113.7	124.5	-	107.0	110.9	121.6	-	104.4	108.2	118.6	-	99.2	102.8	112.7	-	91.9	95.3	104.4	-											
	3200	S/T	0.71	0.59	0.41	-	0.73	0.61	0.43	-	0.75	0.63	0.44	-	0.78	0.65	0.45	-	0.81	0.67	0.47	-	0.81	0.68	0.47	-											
		ΔT	18	16	12	-	19	16	12	-	19	16	12	-	19	16	12	-	18	16	12	-	17	15	11	-											
		Hi Pr	243	262	276	-	273	294	310	-	310	334	353	-	354	381	402	-	398	428	452	-	440	473	499	-											
	75	4500	Lo Pr	106	113	123	-	112	119	130	-	116	124	135	-	122	130	142	-	128	136	149	-	133	141	154	-										
			MBh	103.6	107.4	117.7	-	101.2	104.9	114.9	-	98.8	102.4	112.2	-	96.4	99.9	109.5	-	91.6	94.9	104.0	-	84.8	87.9	96.3	-										
			S/T	0.68	0.57	0.40	-	0.71	0.59	0.41	-	0.73	0.61	0.42	-	0.75	0.63	0.43	-	0.78	0.65	0.45	-	0.78	0.66	0.45	-										
4000		ΔT	20	18	13	-	21	18	14	-	21	18	14	-	21	18	14	-	20	18	13	-	19	17	13	-											
		Hi Pr	236	254	268	-	265	285	301	-	301	324	342	-	343	369	390	-	386	415	438	-	426	459	484	-											
		Lo Pr	103	109	120	-	109	116	126	-	113	120	131	-	119	126	138	-	124	132	144	-	129	137	149	-											
3200		MBh	117.6	121.1	131.0	140.6	114.9	118.3	128.0	137.4	112.1	115.4	125.0	134.1	109.4	112.6	121.9	130.8	103.9	107.0	115.8	124.3	96.3	99.1	107.3	115.1											
		S/T	0.84	0.76	0.57	0.37	0.88	0.78	0.59	0.38	0.90	0.80	0.61	0.39	0.93	0.83	0.63	0.40	0.96	0.86	0.65	0.42	0.97	0.87	0.66	0.42											
		ΔT	20	19	15	11	21	19	16	11	21	19	16	11	21	19	16	11	20	19	15	11	19	18	14	10											
4000		Hi Pr	248	267	282	294	279	300	316	330	317	341	360	375	361	388	410	428	406	437	461	481	448	483	510	531											
		Lo Pr	108	115	126	134	114	122	133	141	119	126	138	147	125	133	145	154	131	139	152	162	135	144	157	167											
		MBh	114.2	117.5	127.2	136.6	111.5	114.8	124.3	133.4	108.9	112.1	121.3	130.2	106.2	109.3	118.4	127.0	100.9	103.9	112.4	120.7	93.5	96.2	104.2	111.8											
3200	S/T	0.81	0.72	0.55	0.35	0.84	0.75	0.57	0.36	0.86	0.77	0.58	0.37	0.88	0.79	0.60	0.38	0.92	0.82	0.62	0.40	0.93	0.83	0.63	0.40												
	ΔT	21	19	16	11	21	20	16	11	21	20	16	11	22	20	16	11	21	20	16	11	20	18	15	10												
	Hi Pr	246	264	279	291	276	297	313	327	314	337	356	372	357	384	406	423	402	432	457	476	444	478	505	526												
3200	Lo Pr	107	114	124	133	113	120	131	140	118	125	137	146	124	131	144	153	130	138	150	160	134	143	156	166												
	MBh	105.4	108.5	117.4	126.0	102.9	106.0	114.7	123.1	100.5	103.4	112.0	120.2	98.0	100.9	109.2	117.2	93.1	95.9	103.8	111.4	86.3	88.8	96.1	103.2												
	S/T	0.78	0.69	0.53	0.34	0.81	0.72	0.55	0.35	0.83	0.74	0.56	0.36	0.85	0.76	0.58	0.37	0.88	0.79	0.60	0.39	0.89	0.80	0.60	0.39												
3200	ΔT	24	22	18	12	24	22	18	12	24	22	18	12	24	22	18	13	24	22	18	12	22	20	17	12												
	Hi Pr	238	257	271	283	267	288	304	317	304	327	346	361	346	373	394	411	390	419	443	462	431	463	489	510												
	Lo Pr	104	111	121	129	110	117	128	136	114	121	133	141	120	128	139	148	126	134	146	155	130	138	151	161												

kW = Total system power
Amps = outdoor unit amps (comp.-fan)

Shaded area reflects ACCA (ITVA) conditions

IDB = Entering Indoor Dry Bulb Temperature
High and low pressures are measured at the liquid and suction service access fittings.

EXPANDED COOLING DATA — 10 Tons (CONT.)

IDB		OUTDOOR AMBIENT TEMPERATURE																																									
		65							75							85							95							105							115						
		59	63	67	71	75	79	83	59	63	67	71	75	79	83	59	63	67	71	75	79	83	59	63	67	71	75	79	83	59	63	67	71	75	79	83							
ENTERING INDOOR WET BULB TEMPERATURE																																											
80	4500	MBh	119.7	122.3	130.7	139.7	116.9	119.4	127.6	136.4	114.1	116.6	124.6	133.2	111.3	113.8	121.5	129.9	105.8	108.1	115.5	123.4	98.0	100.1	107.0	114.3																	
		S/T	0.93	0.87	0.71	0.53	0.96	0.90	0.73	0.55	1.00	0.92	0.75	0.56	1.00	0.95	0.78	0.58	1.00	1.00	0.81	0.60	1.00	1.00	0.81	0.61																	
		ΔT	23	22	19	15	23	22	19	15	23	22	19	15	23	22	19	15	22	22	19	15	20	20	18	14																	
	4000	Hi Pr	251	270	285	297	281	303	320	333	320	344	364	379	364	392	414	432	410	441	466	486	453	487	515	537																	
		Lo Pr	109	116	127	135	116	123	134	143	120	128	139	148	126	134	146	156	132	141	153	163	137	145	159	169																	
		MBh	116.2	118.7	126.9	135.6	113.5	116.0	123.9	132.4	110.8	113.2	121.0	129.3	108.1	110.4	118.0	126.1	102.7	104.9	112.1	119.8	95.1	97.2	103.8	111.0																	
	3200	S/T	0.88	0.83	0.67	0.50	0.92	0.86	0.70	0.52	0.94	0.88	0.72	0.54	0.97	0.91	0.74	0.55	1.00	0.94	0.77	0.57	1.00	0.95	0.77	0.58																	
		ΔT	24	23	20	16	24	23	20	16	24	23	20	16	24	23	20	16	24	23	20	16	22	21	18	15																	
		Hi Pr	248	267	282	294	279	300	317	330	317	341	360	375	361	388	410	428	406	437	461	481	448	483	510	532																	
	85	4500	Lo Pr	108	115	126	134	114	122	133	141	119	126	138	147	125	133	145	154	131	139	152	162	135	144	157	167																
			MBh	107.2	109.6	117.1	125.2	104.8	107.0	114.4	122.3	102.3	104.5	111.6	119.3	99.8	101.9	108.9	116.4	94.8	96.8	103.5	110.6	87.8	89.7	95.8	102.5																
			S/T	0.85	0.80	0.65	0.49	0.88	0.83	0.67	0.50	0.91	0.85	0.69	0.52	0.93	0.88	0.71	0.53	0.97	0.91	0.74	0.55	0.98	0.92	0.75	0.56																
4000		ΔT	26	25	22	17	27	25	22	18	27	25	22	18	27	26	22	18	26	25	22	18	25	24	21	16																	
		Hi Pr	241	259	274	285	270	291	307	320	307	331	349	364	350	377	398	415	394	424	447	467	435	468	494	516																	
		Lo Pr	105	112	122	130	111	118	129	137	115	123	134	143	121	129	141	150	127	135	147	157	131	140	152	162																	
85		4500	MBh	121.8	124.1	130.0	138.7	118.9	121.2	127.0	135.5	116.1	118.4	124.0	132.2	113.3	115.5	120.9	129.0	107.6	109.7	114.9	122.6	99.7	101.6	106.4	113.5																
			S/T	0.97	0.94	0.85	0.69	1.00	0.97	0.88	0.71	1.00	1.00	0.90	0.73	1.00	1.00	0.93	0.75	1.00	1.00	0.96	0.78	1.00	1.00	0.97	0.79																
			ΔT	24	24	22	19	24	24	23	20	24	24	23	20	23	24	23	20	22	22	23	20	20	21	21	18																
		4000	Hi Pr	253	272	288	300	284	306	323	337	323	348	367	383	368	396	418	436	414	446	471	491	457	492	520	542																
			Lo Pr	110	117	128	137	117	124	135	144	121	129	141	150	127	135	148	158	133	142	155	165	138	147	160	171																
			MBh	118.2	120.5	126.2	134.7	115.5	117.7	123.3	131.5	112.7	114.9	120.3	128.4	110.0	112.1	117.4	125.3	104.5	106.5	111.5	119.0	96.8	98.7	103.3	110.2																
	3200	S/T	0.93	0.89	0.81	0.65	0.96	0.93	0.84	0.68	0.98	0.95	0.86	0.70	1.00	0.98	0.89	0.72	1.00	1.00	0.92	0.75	1.00	1.00	0.93	0.75																	
		ΔT	25	25	23	20	25	25	24	21	26	25	24	21	25	25	24	21	24	24	24	20	22	23	22	19																	
		Hi Pr	251	270	285	297	281	303	320	333	320	344	364	379	364	392	414	432	410	441	466	486	453	487	515	537																	
	85	4500	Lo Pr	109	116	127	135	116	123	134	143	120	128	139	148	126	134	146	156	132	141	153	163	137	145	159	169																
			MBh	109.1	111.2	116.5	124.3	106.6	108.6	113.8	121.4	104.0	106.1	111.1	118.5	101.5	103.5	108.4	115.6	96.4	98.3	103.0	109.8	89.3	91.1	95.4	101.7																
			S/T	0.89	0.86	0.78	0.63	0.93	0.89	0.81	0.65	0.95	0.92	0.83	0.67	0.98	0.95	0.85	0.69	1.00	0.98	0.89	0.72	1.00	0.99	0.89	0.72																
3200		ΔT	28	28	26	23	28	28	26	23	28	28	26	23	29	28	27	23	28	28	26	23	26	26	24	21																	
		Hi Pr	243	262	276	288	273	294	310	323	310	334	353	368	353	380	402	419	398	428	452	471	439	473	499	521																	
		Lo Pr	106	113	123	131	112	119	130	139	116	124	135	144	122	130	142	151	128	136	149	159	133	141	154	164																	

IDB = Entering Indoor Dry Bulb Temperature
High and low pressures are measured at the liquid and suction service access fittings.

Shaded area reflects AHRI (TVA) conditions

kW = Total system power
Amps = outdoor unit amps (comp.+fan)

EXPANDED COOLING DATA — 12½ TONS

IDB	AIRFLOW	OUTDOOR AMBIENT TEMPERATURE																													
		65					75					85					95					105					115				
		59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75
70	MIBh	143.1	148.3	162.5	-	139.7	144.8	158.7	-	136.4	141.4	154.9	-	133.1	137.9	151.1	-	126.4	131.0	143.6	-	117.1	121.4	133.0	-						
	S/T	0.70	0.59	0.41	-	0.73	0.61	0.42	-	0.75	0.62	0.43	-	0.77	0.64	0.45	-	0.80	0.67	0.46	-	0.81	0.67	0.47	-						
	ΔT	20	17	13	-	20	17	13	-	20	17	13	-	20	17	13	-	20	17	13	-	18	16	12	-						
	kW	10.47	10.69	11.02	-	11.26	11.50	11.87	-	11.97	12.13	12.62	-	12.59	12.87	13.29	-	13.12	13.41	13.85	-	13.57	13.88	14.34	-						
	Amps	36.3	37.0	37.9	-	38.6	39.3	40.3	-	41.2	42.0	43.1	-	43.5	44.3	45.5	-	45.7	46.7	48.0	-	48.0	49.0	50.3	-						
	HI PR	247	266	281	-	277	298	315	-	315	339	358	-	359	386	408	-	404	434	459	-	446	480	507	-						
	LO PR	100	107	117	-	106	113	123	-	110	117	128	-	116	123	135	-	121	129	141	-	126	134	146	-						
	MIBh	138.9	144.0	157.7	-	135.7	140.6	154.1	-	132.4	137.3	150.4	-	129.2	133.9	146.7	-	122.7	127.2	139.4	-	113.7	117.9	129.1	-						
	S/T	0.67	0.56	0.39	-	0.69	0.58	0.40	-	0.71	0.60	0.41	-	0.74	0.61	0.43	-	0.76	0.64	0.44	-	0.77	0.64	0.45	-						
	ΔT	20	18	13	-	21	18	14	-	21	18	14	-	21	18	14	-	21	18	13	-	19	17	13	-						
kW	10.38	10.60	10.93	-	11.17	11.41	11.78	-	11.87	12.13	12.52	-	12.49	12.76	13.18	-	13.01	13.30	13.73	-	13.46	13.76	14.22	-							
Amps	36.1	36.7	37.7	-	38.3	39.0	40.1	-	40.9	41.7	42.8	-	43.2	44.0	45.2	-	45.4	46.3	47.6	-	47.6	48.6	49.9	-							
HI PR	244	263	278	-	274	295	312	-	312	336	355	-	355	382	404	-	400	430	454	-	442	475	502	-							
LO PR	99	106	116	-	105	112	122	-	109	116	127	-	115	122	133	-	120	128	140	-	124	132	144	-							
MIBh	128.2	132.9	145.6	-	125.2	129.8	142.2	-	122.2	126.7	138.8	-	119.3	123.6	135.4	-	113.3	117.4	128.7	-	104.9	108.8	119.2	-							
S/T	0.65	0.54	0.37	-	0.67	0.56	0.39	-	0.69	0.57	0.40	-	0.71	0.59	0.41	-	0.74	0.61	0.43	-	0.74	0.62	0.43	-							
ΔT	23	20	15	-	23	20	15	-	23	20	15	-	23	20	15	-	23	20	15	-	21	18	14	-							
kW	10.14	10.35	10.67	-	10.91	11.14	11.49	-	11.58	11.83	12.21	-	12.18	12.44	12.85	-	12.69	12.97	13.39	-	13.12	13.42	13.86	-							
Amps	35.3	36.0	36.9	-	37.5	38.2	39.2	-	40.0	40.8	41.9	-	42.2	43.0	44.2	-	44.4	45.3	46.5	-	46.5	47.5	48.8	-							
HI PR	237	255	269	-	266	286	302	-	303	326	344	-	345	371	392	-	388	417	441	-	428	461	487	-							
LO PR	97	103	112	-	102	108	118	-	106	113	123	-	111	118	129	-	117	124	135	-	121	128	140	-							
75	MIBh	145.5	149.8	162.1	174.0	142.1	146.3	158.4	170.0	138.7	142.8	154.6	165.9	135.3	139.3	150.8	161.9	128.6	132.4	143.3	153.8	119.1	122.6	132.7	142.5						
	S/T	0.80	0.71	0.54	0.35	0.83	0.74	0.56	0.36	0.85	0.76	0.57	0.37	0.88	0.78	0.59	0.38	0.91	0.81	0.62	0.40	0.92	0.82	0.62	0.40						
	ΔT	23	21	17	12	23	21	17	12	23	21	17	12	23	21	17	12	23	21	17	12	21	20	16	11						
	kW	10.55	10.77	11.11	11.46	11.36	11.60	11.97	12.36	12.07	12.33	12.73	13.15	12.70	12.97	13.40	13.85	13.23	13.52	13.97	14.44	13.69	14.00	14.46	14.95						
	Amps	36.6	37.3	38.2	39.3	38.9	39.6	40.6	41.9	41.5	42.3	43.5	44.8	43.8	44.7	45.9	47.3	46.1	47.0	48.3	49.9	48.4	49.3	50.7	52.4						
	HI PR	249	268	283	296	280	301	318	332	318	343	362	377	363	390	412	430	408	439	463	483	451	485	512	534						
	LO PR	102	108	118	126	107	114	125	133	111	119	129	138	117	125	136	145	123	131	143	152	127	135	147	157						
	MIBh	141.3	145.4	157.4	169.0	138.0	142.1	153.8	165.0	134.7	138.7	150.1	161.1	131.4	135.3	146.4	157.2	124.8	128.5	139.1	149.3	115.6	119.1	128.9	138.3						
	S/T	0.76	0.68	0.52	0.33	0.79	0.71	0.53	0.34	0.81	0.72	0.55	0.35	0.84	0.75	0.57	0.36	0.87	0.78	0.59	0.38	0.88	0.78	0.59	0.38						
	ΔT	24	22	18	12	24	22	18	12	24	22	18	12	24	22	18	13	24	22	18	12	22	20	17	12						
kW	10.47	10.69	11.02	11.37	11.27	11.51	11.87	12.26	11.97	12.23	12.62	13.04	12.59	12.87	13.29	13.73	13.12	13.41	13.85	14.32	13.58	13.88	14.34	14.82							
Amps	36.3	37.0	37.9	39.0	38.6	39.3	40.3	41.5	41.2	42.0	43.1	44.5	43.5	44.3	45.6	47.0	45.8	46.7	48.0	49.5	48.0	49.0	50.3	51.9							
HI PR	247	266	281	293	277	298	315	328	315	339	358	374	359	386	408	425	404	435	459	479	446	480	507	529							
LO PR	101	107	117	124	106	113	123	131	110	117	128	137	116	123	135	143	121	129	141	150	126	134	146	155							
MIBh	130.4	134.2	145.3	155.9	127.3	131.1	141.9	152.3	124.3	128.0	138.5	148.7	121.3	124.9	135.2	145.1	115.2	118.6	128.4	137.8	106.7	109.9	118.9	127.7							
S/T	0.73	0.66	0.50	0.32	0.76	0.68	0.52	0.33	0.78	0.70	0.53	0.34	0.81	0.72	0.55	0.35	0.84	0.75	0.57	0.36	0.84	0.75	0.57	0.37							
ΔT	26	24	20	14	27	24	20	14	27	24	20	14	27	25	20	14	26	24	20	14	25	23	19	13							
kW	10.22	10.43	10.76	11.10	10.99	11.23	11.58	11.96	11.68	11.93	12.31	12.72	12.28	12.55	12.96	13.39	12.79	13.08	13.50	13.95	13.24	13.53	13.98	14.45							
Amps	35.6	36.2	37.1	38.2	37.8	38.5	39.5	40.6	40.3	41.1	42.2	43.5	42.5	43.3	44.5	45.9	44.7	45.6	46.9	48.3	46.9	47.8	49.2	50.7							
HI PR	240	258	272	284	269	289	305	319	306	329	347	362	348	375	396	413	392	422	445	464	433	466	492	513							
LO PR	97	104	113	121	103	110	120	127	107	114	124	132	112	120	131	139	118	125	137	146	122	130	142	151							

IDB: Entering Indoor Dry Bulb Temperature
 High and low pressures are measured at the liquid and suction access fittings.
 Shaded area reflects ACCA (TVA) Rating Conditions
 Amps: Unit amps (comp.+ evaporator + condenser fan motors)
 KW = Total system power

EXPANDED COOLING DATA — 12½ TONS (CONT.)

IDB	AIRFLOW	OUTDOOR AMBIENT TEMPERATURE												ENTERING INDOOR WET BULB TEMPERATURE											
		65				75				85				95				105				115			
		59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71
4725	MBh	148.1	151.3	161.7	172.8	144.6	147.8	157.9	168.8	141.2	144.3	154.1	164.8	137.7	140.8	150.4	160.8	130.9	133.7	142.9	152.7	121.2	123.9	132.3	141.5
	S/T	0.88	0.82	0.67	0.50	0.91	0.85	0.69	0.52	0.93	0.87	0.71	0.53	0.96	0.90	0.73	0.55	1.00	0.94	0.76	0.57	1.00	0.94	0.77	0.57
	ΔT	25	24	21	17	26	25	21	17	26	25	21	17	26	25	21	17	25	24	21	17	24	23	20	16
	KW	10.63	10.86	11.20	11.56	11.45	11.69	12.07	12.46	12.17	12.43	12.83	13.26	12.80	13.08	13.51	13.96	13.34	13.64	14.09	14.56	13.81	14.11	14.58	15.08
	Amps	36.8	37.5	38.5	39.6	39.2	39.9	40.9	42.2	41.8	42.6	43.8	45.1	44.1	45.0	46.2	47.7	46.5	47.4	48.7	50.3	48.7	49.7	51.1	52.8
	HI PR	252	271	286	299	283	304	321	335	322	346	365	381	366	394	416	434	412	443	468	488	455	490	517	539
	LO PR	103	109	119	127	108	115	126	134	113	120	131	139	118	126	137	146	124	132	144	153	128	136	149	159
	MBh	143.8	146.9	157.0	167.8	140.4	143.5	153.3	163.9	137.1	140.1	149.7	160.0	133.7	136.7	146.0	156.1	127.0	129.8	138.7	148.3	117.7	120.3	128.5	137.3
	S/T	0.84	0.78	0.64	0.48	0.87	0.81	0.66	0.49	0.89	0.83	0.68	0.51	0.92	0.86	0.70	0.52	0.95	0.89	0.73	0.54	0.96	0.90	0.73	0.55
	ΔT	26	25	22	18	27	26	22	18	27	26	22	18	27	26	22	18	26	25	22	18	25	24	21	16
	KW	10.55	10.77	11.11	11.47	11.36	11.60	11.97	12.36	12.07	12.33	12.73	13.15	12.70	12.98	13.40	13.85	13.23	13.52	13.97	14.44	13.69	14.00	14.46	14.95
	Amps	36.6	37.3	38.2	39.3	38.9	39.6	40.6	41.9	41.5	42.3	43.5	44.8	43.8	44.7	45.9	47.3	46.1	47.0	48.3	49.9	48.4	49.3	50.7	52.4
HI PR	249	268	283	296	280	301	318	332	318	343	362	377	363	390	412	430	408	439	464	483	451	485	512	534	
LO PR	102	108	118	126	107	114	125	133	111	119	129	138	117	125	136	145	123	131	143	152	127	135	147	157	
MBh	132.7	135.6	144.9	154.9	129.6	132.4	141.5	151.3	126.5	129.3	138.1	147.7	123.4	126.1	134.8	144.1	117.3	119.8	128.0	136.9	108.6	111.0	118.6	126.8	
S/T	0.81	0.76	0.62	0.46	0.84	0.78	0.64	0.48	0.86	0.80	0.65	0.49	0.88	0.83	0.67	0.50	0.92	0.86	0.70	0.52	0.93	0.87	0.71	0.53	
ΔT	29	28	24	19	30	28	25	20	30	28	25	20	30	29	25	20	29	28	25	20	28	26	23	18	
KW	10.30	10.52	10.84	11.19	11.08	11.32	11.68	12.06	11.77	12.03	12.41	12.82	12.38	12.65	13.06	13.50	12.90	13.18	13.62	14.07	13.35	13.64	14.09	14.57	
Amps	35.8	36.5	37.4	38.5	38.0	38.8	39.8	40.9	40.6	41.4	42.5	43.8	42.8	43.7	44.9	46.2	45.1	46.0	47.2	48.7	47.2	48.2	49.5	51.1	
HI PR	242	260	275	287	271	292	309	322	309	332	351	366	352	378	400	417	396	426	450	469	437	470	497	518	
LO PR	98	105	114	122	104	111	121	129	108	115	126	134	114	121	132	140	119	127	138	147	123	131	143	152	
80	MBh	150.7	153.6	160.9	171.6	147.2	150.0	157.1	167.6	143.7	146.4	153.4	163.6	140.2	142.9	149.6	159.6	133.1	135.7	142.1	151.6	123.3	125.7	131.7	140.5
	S/T	0.92	0.89	0.80	0.65	0.95	0.92	0.83	0.67	0.98	0.94	0.85	0.69	1.00	0.97	0.88	0.71	1.00	1.00	0.91	0.74	1.00	1.00	0.92	0.75
	ΔT	27	26	25	22	27	27	25	22	27	27	25	22	27	27	26	22	26	26	25	22	24	24	24	20
	KW	10.72	10.94	11.29	11.65	11.54	11.79	12.17	12.56	12.27	12.53	12.94	13.37	12.91	13.19	13.62	14.08	13.45	13.75	14.21	14.68	13.92	14.23	14.71	15.21
	Amps	37.1	37.8	38.8	39.9	39.4	40.2	41.2	42.5	42.1	43.0	44.1	45.5	44.5	45.4	46.6	48.1	46.8	47.8	49.1	50.6	49.1	50.1	51.5	53.2
	HI PR	254	274	289	302	286	307	324	338	325	349	369	385	370	398	420	438	416	448	473	493	460	495	522	545
	LO PR	104	110	120	128	109	116	127	135	114	121	132	141	119	127	139	148	125	133	145	155	129	138	150	160
	MBh	146.3	149.1	156.2	166.6	142.9	145.6	152.5	162.7	139.5	142.2	148.9	158.9	136.1	138.7	145.3	155.0	129.3	131.8	138.0	147.2	119.7	122.1	127.8	136.4
	S/T	0.88	0.85	0.76	0.62	0.91	0.88	0.79	0.64	0.93	0.90	0.81	0.66	0.96	0.93	0.84	0.68	1.00	0.96	0.87	0.70	1.00	0.97	0.88	0.71
	ΔT	28	28	26	23	28	28	26	23	28	28	26	23	29	28	27	23	28	28	26	23	26	26	25	21
	KW	10.63	10.86	11.20	11.56	11.45	11.69	12.07	12.46	12.17	12.43	12.83	13.26	12.80	13.08	13.51	13.96	13.34	13.64	14.09	14.56	13.81	14.11	14.58	15.08
	Amps	36.8	37.5	38.5	39.6	39.2	39.9	40.9	42.2	41.8	42.6	43.8	45.1	44.1	45.0	46.2	47.7	46.5	47.4	48.7	50.3	48.7	49.7	51.1	52.8
HI PR	252	271	286	299	283	304	321	335	322	346	365	381	366	394	416	434	412	443	468	488	455	490	517	539	
LO PR	103	109	119	127	108	115	126	134	113	120	131	139	118	126	137	146	124	132	144	153	128	136	149	159	
MBh	135.0	137.6	144.1	153.8	131.9	134.4	140.8	150.2	128.7	131.2	137.4	146.6	125.6	128.0	134.1	143.0	119.3	121.6	127.4	135.9	110.5	112.7	118.0	125.9	
S/T	0.85	0.82	0.74	0.60	0.88	0.85	0.76	0.62	0.90	0.87	0.78	0.63	0.93	0.89	0.81	0.65	0.96	0.93	0.84	0.68	0.97	0.94	0.84	0.69	
ΔT	31	31	29	25	32	31	29	25	32	31	29	25	32	31	30	26	31	31	29	25	29	29	27	24	
KW	10.38	10.60	10.93	11.28	11.17	11.41	11.77	12.15	11.87	12.13	12.52	12.93	12.48	12.76	13.17	13.61	13.01	13.29	13.73	14.19	13.46	13.76	14.21	14.69	
Amps	36.1	36.7	37.7	38.7	38.3	39.0	40.0	41.2	40.9	41.7	42.8	44.1	43.1	44.0	45.2	46.6	45.4	46.3	47.6	49.1	47.6	48.6	49.9	51.5	
HI PR	244	263	278	290	274	295	312	325	312	336	354	370	355	382	404	421	400	430	454	474	442	475	502	523	
LO PR	99	106	116	123	105	112	122	130	109	116	127	135	115	122	133	142	120	128	140	149	124	132	144	154	

IDB: Entering Indoor Dry Bulb Temperature
 High and low pressures are measured at the liquid and suction access fittings.

Shaded area reflects AHRH (TVA) Rating Conditions

Amps: Unit amps (comp. + evaporator + condenser fan motors)
 KW = Total system power

AIRFLOW DATA — 7½ TONS

STANDARD BELT DRIVE — DOWN SHOT

ESP, IN H ₂ O	TURNS OPEN																	
	0			1			2			3			4			5		
	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP
0.1													3617	704	1.07	3293	653	0.84
0.3										3541	749	1.15	3179	704	0.88	2757	656	0.66
0.5							3447	798	1.23	3049	754	0.94	2606	710	0.71			
0.7				3400	848	1.33	2950	798	1.01	2474	754	0.75						
0.9	3303	890	1.41	2871	848	1.11	2408	804	0.82									
1.1	2838	897	1.23															

HIGH-STATIC BELT DRIVE — DOWN SHOT (A MODELS ONLY)

ESP, IN H ₂ O	TURNS OPEN																	
	0			1			2			3			4			5		
	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP
0.9																3401	909	1.51
1.1													3428	965	1.71	2943	915	1.3
1.3										3471	1015	1.9	3012	971	1.5	2423	920	1.12
1.5							3722	1063	2.25	3041	1023	1.67	2503	976	1.31			
1.7							3359	1075	2.04	2540	1031	1.5						
1.9				3381	1119	2.22	2890	1080	1.78									
2.1				3089	1129	2.04												

STANDARD BELT DRIVE — HORIZONTAL

ESP, IN H ₂ O	TURNS OPEN																	
	0			1			2			3			4			5		
	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP
0.1													3625	701	1.08	3309	660	0.86
0.3							3815	797	1.44	3468	747	1.11	3177	703	0.88	2796	663	0.68
0.5				3780	841	1.52	3405	803	1.23	3053	753	0.94	2608	709	0.68	2225	665	0.53
0.7	3687	885	1.6	3327	847	1.29	2968	805	1.02	2423	758	0.73						
0.9	3236	891	1.39	2850	852	1.1	2352	807	0.8									
1.1	2713	896	1.17															

HIGH-STATIC BELT DRIVE — HORIZONTAL (A MODELS ONLY)

ESP, IN H ₂ O	TURNS OPEN																	
	0			1			2			3			4			5		
	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP
0.9																3447	902	1.54
1.1													3398	956	1.65	3006	908	1.31
1.3										3486	1008	1.87	2960	962	1.44			
1.5							3514	1057	2.07	2949	1019	1.62						
1.7				3388	1103	2.18	3036	1069	1.84									
1.9				2959	1114	2.0												
2.1				2527	1124	1.86												

Notes :

Assume dry coil with filter in place; CFM correction for wet coil = 3%
 Any adjustment made to the blower should not cause the motor to draw more than the motor rated RLA. Applications that exceed the above could require a larger motor. Minimum rated SCFM is 350 per ton.

AIRFLOW DATA — 8½ TONS

STANDARD BELT DRIVE — DOWN SHOT

ESP, IN H ₂ O	TURNS OPEN																	
	0			1			2			3			4			5		
	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP
0.1													3467	701	1.04	3143	650	0.81
0.3										3391	746	1.12	3029	701	0.85	2607	653	0.63
0.5							3297	795	1.20	2899	751	0.91	2456	707	0.68			
0.7				3250	845	1.30	2800	795	0.98									
0.9	3153	887	1.38	2721	845	1.08												
1.1	2688	894	1.20															

HIGH-STATIC BELT-DRIVE — DOWN SHOT

ESP, IN H ₂ O	TURNS OPEN																	
	0			1			2			3			4			5		
	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP
0.9																3251	906	1.48
1.1													3278	962	1.68	2793	912	1.27
1.3										3321	1012	1.87	2862	968	1.47			
1.5							3572	1060	2.22	2891	1020	1.64						
1.7							3209	1072	2.01									
1.9				3231	1116	2.19	2740	1077	1.75									
2.1	3256	1156	2.31	2939	1126	2.01												

STANDARD BELT DRIVE — HORIZONTAL

ESP, IN H ₂ O	TURNS OPEN																	
	0			1			2			3			4			5		
	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP
0.1													3475	698	1.05	3159	657	0.83
0.3							3665	794	1.41	3318	744	1.08	3027	700	0.85	2646	660	0.65
0.5				3630	838	1.49	3255	800	1.2	2903	750	0.91	2458	706	0.65			
0.7	3537	882	1.57	3177	844	1.26	2818	802	0.99									
0.9	3086	888	1.36	2700	849	1.07												
1.1	2563	893	1.14															

HIGH-STATIC BELT-DRIVE — HORIZONTAL

ESP, IN H ₂ O	TURNS OPEN																	
	0			1			2			3			4			5		
	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP
0.9																3297	899	1.51
1.1													3248	953	1.62	2856	905	1.28
1.3										3336	1005	1.84	2810	959	1.41			
1.5							3364	1054	2.04	2799	1016	1.59						
1.7				3238	1100	2.15	2886	1066	1.81									
1.9	3188	1146	2.23	2809	1111	1.97												

Notes :

Assume dry coil with filter in place; CFM correction for wet coil = 3%

Any adjustment made to the blower should not cause the motor to draw more than the motor rated RLA. Applications that exceed the above could require a larger motor. Minimum rated SCFM is 350 per ton.

AIRFLOW DATA — 10 Tons

STANDARD BELT DRIVE — DOWN SHOT

ESP, IN H ₂ O	TURNS OPEN																	
	0			1			2			3			4			5		
	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP
0.2													4629	774	1.76	4269	733	1.42
0.4										4539	824	1.86	4198	781	1.53	3797	735	1.21
0.6							4511	868	2.01	4103	829	1.63	3752	787	1.33	3312	745	1.03
0.8				4445	912	2.14	4144	873	1.81	3695	833	1.45	3180	790	1.07			
1	4418	956	2.3	4073	917	1.92	3661	879	1.55									
1.2	4064	967	2.09	3518	923	1.6												
1.4	3555	972	1.77															

HIGH-STATIC BELT DRIVE — DOWN SHOT

ESP, IN H ₂ O	TURNS OPEN																	
	0			1			2			3			4			5		
	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP
0.8													4681	937	2.38	4206	891	1.91
1										4634	985	2.57	4288	948	2.19	3721	897	1.63
1.2							4533	1020	2.63	4367	995	2.41	3845	954	1.91			
1.4				4550	1064	2.83	4290	1042	2.56	3913	1006	2.13						
1.6				4327	1087	2.73	3990	1057	2.37									
1.8	4652	1148	3.33	4023	1105	2.58												
2	4306	1162	3.05															

STANDARD BELT DRIVE — HORIZONTAL

ESP, IN H ₂ O	TURNS OPEN																	
	0			1			2			3			4			5		
	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP
0.2																4707	724	1.62
0.4													4679	774	1.78	4235	730	1.4
0.6										4595	822	1.91	4223	780	1.55	3679	735	1.16
0.8							4468	862	1.96	4121	824	1.64	3596	785	1.26			
1				4349	907	2.06	3990	868	1.72	3463	829	1.31						
1.2	4486	962	2.35	3923	918	1.84	3267	879	1.33									
1.4	3990	967	2.03															

HIGH-STATIC BELT DRIVE — HORIZONTAL

ESP, IN H ₂ O	TURNS OPEN																	
	0			1			2			3			4			5		
	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP
0.8																4604	886	2.15
1													4737	940	2.48	4236	890	1.93
1.2										4792	984	2.69	4347	946	2.19	3675	901	1.64
1.4							4431	998	2.46	4404	995	2.45	3710	956	1.82			
1.6				4652	1061	2.93	4183	1028	2.42	3845	1006	2.08						
1.8				4418	1083	2.81	3847	1050	2.22									
2	4823	1149	3.5	4055	1105	2.6												

AIRFLOW DATA — 12½ TONS

STANDARD BELT DRIVE --- DOWN SHOT

ESP (IN W.C.)	TURNS OPEN											
	0		1		2		3		4		5	
	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
0.2					5378	2.35	4967	1.92	4710	1.59	4512	1.33
0.4	5514	2.92	5349	2.56	4750	1.97	4583	1.71	4319	1.40	4030	1.13
0.6	5204	2.69	4919	2.27	4488	1.81	4258	1.54				
0.8	4830	2.42	4649	2.09	4019	1.55						
1.0	4497	2.19	4264	1.86								

HIGH-STATIC BELT DRIVE --- DOWN SHOT

ESP (IN W.C.)	TURNS OPEN											
	0		1		2		3		4		5	
	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
0.8							5978	3.87	5691	3.38	5324	2.81
1.0					5947	4.16	5656	3.58	5376	3.12	4933	2.52
1.2					5708	3.93	5459	3.40	4950	2.79	4441	2.18
1.4	5776	4.64	5510	4.07	5245	3.48	4844	2.88	4525	2.45		
1.6	5465	4.30	5199	3.74	4894	3.17	4404	2.54				
1.8	5145	3.97	4871	3.41	4495	2.83						
2.0	4805	3.63	4565	3.13	4142	2.55						
2.2	4429	3.27	4233	2.85								

STANDARD BELT DRIVE --- HORIZONTAL

ESP (IN W.C.)	TURNS OPEN											
	0		1		2		3		4		5	
	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
0.2							5570	2.27	4935	1.70	4584	1.36
0.4	5871	3.20	5639	2.77	5307	2.31	4902	1.88	4637	1.55	4178	1.19
0.6	5610	3.00	5358	2.57	5051	2.15	4603	1.72	4341	1.41		
0.8	5391	2.83	5010	2.33	4799	2.00	4393	1.61				
1.0	5078	2.59	4676	2.11	4448	1.79						
1.2	4521	2.20	4226	1.83								

HIGH-STATIC BELT DRIVE --- HORIZONTAL

ESP (IN W.C.)	TURNS OPEN											
	0		1		2		3		4		5	
	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
0.8									5858	3.51	5538	2.97
1.0							5894	3.85	5502	3.20	5282	2.78
1.2					5780	4.04	5570	3.55	5110	2.88	4869	2.47
1.4			5900	4.49	5501	3.77	5312	3.33	4793	2.64	4598	2.28
1.6	5860	4.76	5514	4.08	5257	3.54	4945	3.01	4382	2.34		
1.8	5615	4.49	5315	3.88	5020	3.32	4504	2.66				
2.0	5529	4.40	4906	3.49	4601	2.96						
2.2	4938	3.78	4541	3.15	4222	2.65						

NOTES

- Assume dry coil with filter in place; CFM correction for wet coil = 3%
- Any adjustment made to the blower should not cause the motor to draw more than the motor rated RLA. Application that exceed the above could require a larger motor. Minimum rated SCFM is 350 per ton.

HEAT KIT ELECTRICAL DATA — 7½ TONS

MODEL AND HEAT KIT USAGE	MCA ¹ AT 208 / 240V	MOP ² (AMPS) AT 208 / 240V	ACTUAL kW AT 240V	RECOMMENDED AIRFLOW RANGE
CPH090***3B***	40	50		
EHK3-16	74 / 85	80 / 90	15	3000-3375 CFM
EHK3-30	113 / 130	120 / 150	30	3000-3375 CFM
EHK3-45	147 / 169	150 / 175	43	3000-3375 CFM

MODEL AND HEAT KIT USAGE	MCA ¹ AT 208 / 240V	MOP ² (AMPS) AT 208 / 240V	ACTUAL kW AT 240V	RECOMMENDED AIRFLOW RANGE
CPH090***4B***	19	25		
EHK4-16	42	45	15	3000-3375 CFM
EHK4-30	64	70	30	3000-3375 CFM
EHK4-45	84	90	43	3000-3375 CFM

MODEL AND HEAT KIT USAGE	MCA ¹ AT 208 / 240V	MOP ² (AMPS) AT 208 / 240V	ACTUAL kW AT 240V	RECOMMENDED AIRFLOW RANGE
CPH090***7B***	14	15		
EHK4-16	32	35	15	---
EHK4-30	51	60	30	---
EHK4-45	68	70	43	---

¹ Minimum Circuit Ampacity

² Maximum Overcurrent Protection device

KW CORRECTION FACTORS

kW CORRECTION FACTOR FOR 3-PHASE UNITS					
SUPPLY VOLTAGE	240	230	220	210	208
CORRECTION FACTOR	1	0.93	0.82	0.78	0.76

kW CORRECTION FACTOR FOR 480V UNITS			
SUPPLY VOLTAGE	460	440	430
CORRECTION FACTOR	0.92	0.84	0.8

kW CORRECTION FACTOR FOR 575V UNITS			
SUPPLY VOLTAGE	560	550	540
CORRECTION FACTOR	0.95	0.91	0.88

For other voltage, use $\text{voltage}^2 / 480^2$

Multiply rated kW by correction factor to get actual kW.

MINIMUM AIRFLOW FOR ELECTRIC HEAT

HEATER SIZE (kW)	MINIMUM CFM
15	3,000
30	3,000
43	3,000

HEAT KIT ELECTRICAL DATA — 8½ TONS

MODEL AND HEAT KIT USAGE	MCA ¹ AT 240V	MOP ² (AMPS) AT 240V	ACTUAL kW AT 240V	RECOMMENDED AIRFLOW RANGE (DOWNSHOT)	RECOMMENDED AIRFLOW RANGE (HORIZONTAL)
CPH102***3B***	43	50			
EHK3-16	88	90	15	3400 - 3825 CFM	3400 - 3825 CFM
EHK3-30	133	150	35	3400 - 3825 CFM	3400 - 3825 CFM
EHK3-45	173	175	43	3400 - 3825 CFM	3400 - 3825 CFM

MODEL AND HEAT KIT USAGE	MCA ¹ AT 480V	MOP ² (AMPS) AT 480V	ACTUAL kW AT 480V	RECOMMENDED AIRFLOW RANGE (DOWNSHOT)	RECOMMENDED AIRFLOW RANGE (HORIZONTAL)
CPH102***4B***	20	25			
EHK4-16	42	45	15	3400 - 3825 CFM	3400 - 3825 CFM
EHK4-30	65	70	30	3400 - 3825 CFM	3400 - 3825 CFM
EHK4-45	84	90	43	3400 - 3825 CFM	3400 - 3825 CFM

MODEL AND HEAT KIT USAGE	MCA ¹ AT 575V	MOP ² (AMPS) AT 575V	ACTUAL kW AT 575V	RECOMMENDED AIRFLOW RANGE (DOWNSHOT)	RECOMMENDED AIRFLOW RANGE (HORIZONTAL)
CPH102***7B***	17	20			
EHK7-16	36	40	15	3400 - 3825 CFM	3400 - 3825 CFM
EHK7-30	55	60	30	3400 - 3825 CFM	3400 - 3825 CFM
EHK7-45	71	80	43	3400 - 3825 CFM	3400 - 3825 CFM

¹ Minimum Circuit Ampacity

² Maximum Overcurrent Protection device

^ - EHK Heater Kits above require a three-phase power supply

kW CORRECTION FACTOR

kW CORRECTION FACTOR (FOR 1- & 3-PHASE UNITS)					
Supply Voltage	240	230	220	210	208
Correction Factor	1	0.93	0.82	0.78	0.76

kW CORRECTION FACTOR FOR 480V UNITS			
Actual Voltage	460	440	430
Correction Factor	0.92	0.84	0.8

For other voltage use $\text{voltage}^2 / 480^2$

kW CORRECTION FACTOR FOR 575V UNITS			
Supply Voltage	560	550	540
Correction Factor	0.95	0.91	0.88

Multiply rated kW by correction factor to get actual kW

MINIMUM AIRFLOW FOR ELECTRIC HEAT

HEATER SIZE (kW)	MIN. CFM DOWN-SHOT	MIN. CFM HORIZONTAL
15	3,400	3,400
30	3,400	3,400
43	3,400	3,400

HEAT KIT ELECTRICAL DATA — 10 TONS

MODEL AND HEAT KIT USAGE	MCA ¹ AT 208 / 240V	MOP ² (AMPS) AT 208 / 240V	ACTUAL kW AT 240V	RECOMMENDED AIRFLOW RANGE
CPH120***3B***	49	60		
EHK3-16	81 / 94	90 / 100	15	3500 - 4500 CFM
EHK3-30	122 / 139	125 / 150	35	3500 - 4500 CFM
EHK3-45	154 / 178	175 / 200	43	4000 - 4500 CFM
MODEL AND HEAT KIT USAGE	MCA ¹ AT 208 / 240V	MOP ² (AMPS) AT 208 / 240V	ACTUAL kW AT 240V	RECOMMENDED AIRFLOW RANGE
CPH120***3H***	50	60		
EHK3-16	82 / 95	90 / 100	15	---
EHK3-30	122 / 140	125 / 150	35	---
EHK3-45	155 / 179	175 / 200	43	---

MODEL AND HEAT KIT USAGE	MCA ¹ AT 480V	MOP ² (AMPS) AT 480V	ACTUAL kW AT 480V	RECOMMENDED AIRFLOW RANGE
CPH120***4B***	24	30		
EHK4-16	46	50	15	3500 - 4500 CFM
EHK4-30	69	70	30	3500 - 4500 CFM
EHK4-45	89	90	43	4000 - 4500 CFM

MODEL AND HEAT KIT USAGE	MCA ¹ AT 575V	MOP ² (AMPS) AT 575V	ACTUAL kW AT 575V	RECOMMENDED AIRFLOW RANGE
CPH0120***7B***	17	20		
EHK7-16	36	40	15	3500 - 4500 CFM
EHK7-30	55	60	30	3500 - 4500 CFM
EHK7-45	71	80	43	4000 - 4500 CFM

¹ Minimum Circuit Ampacity

² Maximum Overcurrent Protection device

kW CORRECTION FACTOR

kW CORRECTION FACTOR (FOR 1- & 3-PHASE UNITS)					
Supply Voltage	240	230	220	210	208
Correction Factor	1	0.93	0.82	0.78	0.76

kW CORRECTION FACTOR FOR 480V UNITS			
Actual Voltage	460	440	430
Correction Factor	0.92	0.84	0.8

For other voltage use $\text{voltage}^2 / 480^2$

kW CORRECTION FACTOR FOR 575V UNITS			
Supply Voltage	560	550	540
Correction Factor	0.95	0.91	0.88

Multiply rated kW by correction factor to get actual kW

MINIMUM AIRFLOW FOR ELECTRIC HEAT

HEATER SIZE (kW)	MIN. CFM DOWN-SHOT	MIN. CFM HORIZONTAL
15	4,000	4,000
30	4,000	4,000
43	4,000	4,000

HEAT KIT ELECTRICAL DATA — 12½ TONS

MODEL AND HEAT KIT USAGE	MCA ¹ AT 208 / 240V	MOP ² (AMPS) AT 208 / 240V	ACTUAL KW AT 240V	RECOMMENDED AIRFLOW RANGE
CPH150***3B***	65	80		
EHK3-16	110	110	15	4000 - 5600
EHK3-30	155	175	30	4300 - 5600
EHK3-45	194	200	43	4500 - 5600

MODEL AND HEAT KIT USAGE	MCA ¹ AT 208 / 240V	MOP ² (AMPS) AT 208 / 240V	ACTUAL KW AT 240V	RECOMMENDED AIRFLOW RANGE
CPH150***4B***	31	40		
EHK4-16	54	60	15	4000 - 5600
EHK4-30	76	80	30	4300 - 5600
EHK4-45	96	100	43	4500 - 5600

MODEL AND HEAT KIT USAGE	MCA ¹ AT 208 / 240V	MOP ² (AMPS) AT 208 / 240V	ACTUAL KW AT 240V	RECOMMENDED AIRFLOW RANGE
CPH150***7B***	23	30		
EHK7-16	42	45	15	4000 - 5600
EHK7-30	61	70	30	4300 - 5600
EHK7-45	77	80	43	4500 - 5600

¹ Minimum Circuit Ampacity (standard drive)

² Maximum Overcurrent Protection device (standard drive)

KW CORRECTION FACTORS

kW CORRECTION FACTOR FOR 1- & 3-PHASE UNITS					
SUPPLY VOLTAGE	240	230	220	210	208
CORRECTION FACTOR	1	0.93	0.82	0.78	0.76

kW CORRECTION FACTOR FOR 480V UNITS			
SUPPLY VOLTAGE	460	440	430
CORRECTION FACTOR	0.92	0.84	0.8

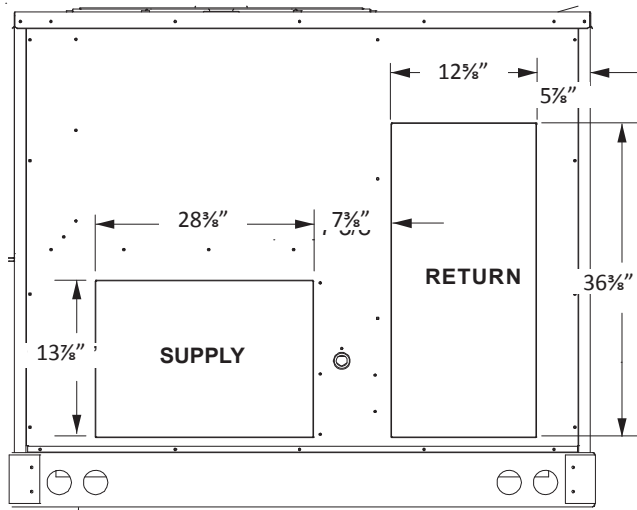
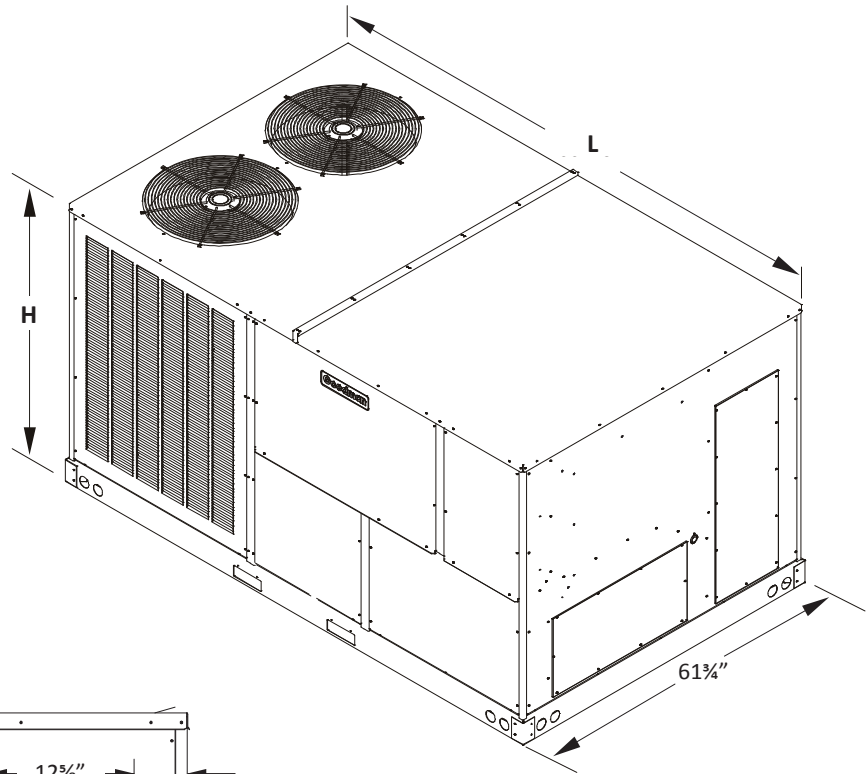
For other voltage, use $\text{voltage}^2 / 480^2$

kW CORRECTION FACTOR FOR 575V UNITS			
SUPPLY VOLTAGE	560	550	540
CORRECTION FACTOR	0.95	0.91	0.88

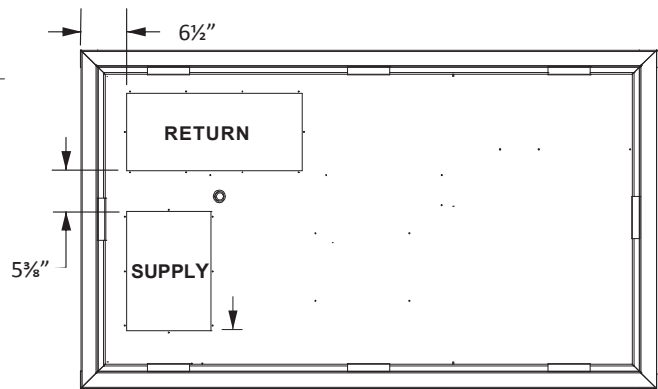
Multiply rated kW by correction factor to get actual kW.

DIMENSIONS

MODEL SIZE	DIMENSIONS	
	H	L
7½ to 10 Tons	52⅞"	99⅞"
12½ Tons	58⅞"	99⅞"



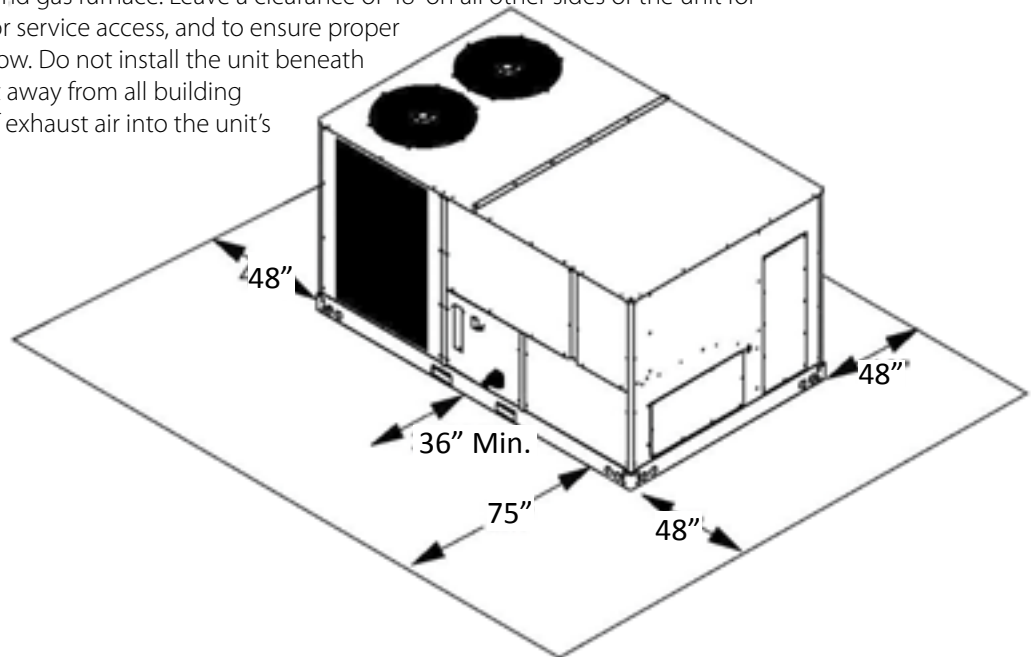
Horizontal Discharge



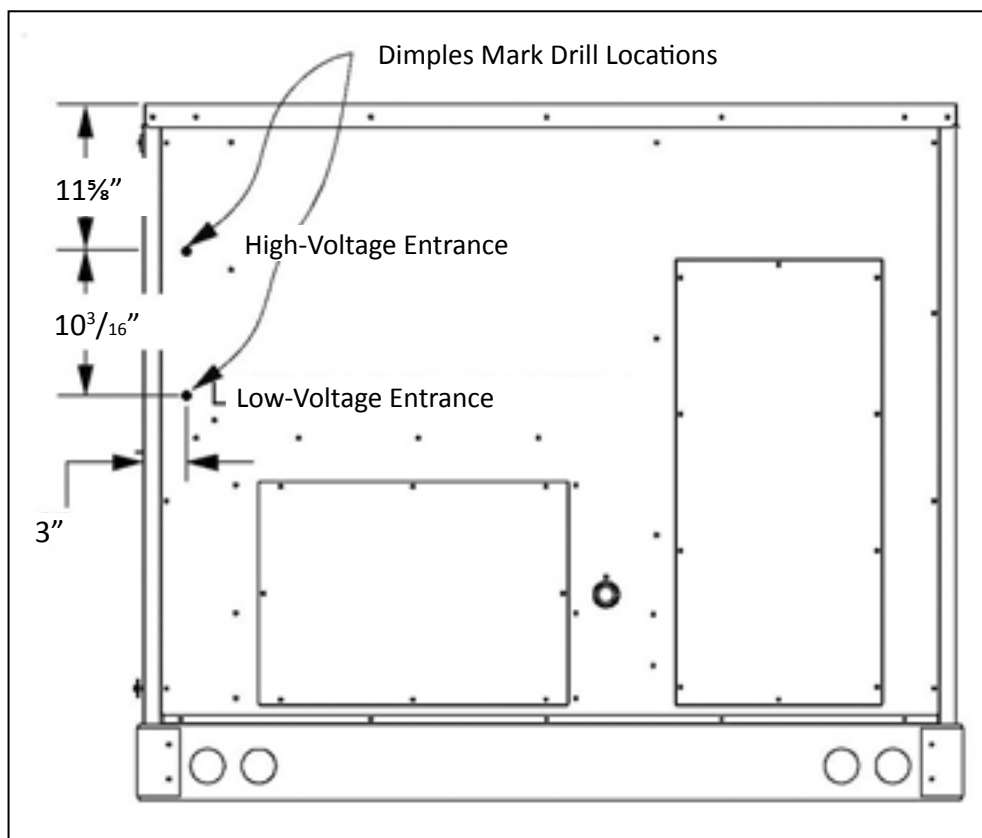
Vertical Discharge (Bottom of Unit)

UNIT CLEARANCES

Maintain an adequate clearance around the unit for safety, service, maintenance, and proper unit operation. Leave a total clearance of 75" on the main control panel side of the unit for possible removal of fan shaft, coil, electric heat, and gas furnace. Leave a clearance of 48" on all other sides of the unit for possible compressor removal or service access, and to ensure proper ventilation and condenser airflow. Do not install the unit beneath any obstruction. Install the unit away from all building exhausts to inhibit ingestion of exhaust air into the unit's fresh-air intake.



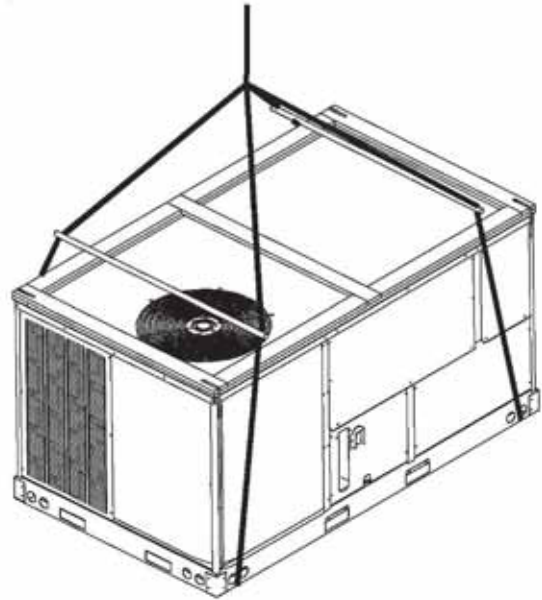
ELECTRICAL ENTRANCE LOCATIONS



ROOF CURB INSTALLATION — RIGGING

Provisions for forks have been included in the unit base frame. No other fork locations are approved.

- Unit must be lifted by the four lifting holes located at the base frame corners.
- Lifting cables should be attached to the unit with shackles.
- The distance between the crane hook and the top of the unit must not be less than 60".
- Two spreader bars must span over the unit to prevent damage to the cabinet by the lift cables. Spreader bars must be of sufficient length so that cables do not come in contact with the unit during transport. Remove wood struts mounted beneath unit base frame before setting unit on roof curb. These struts are intended to protect unit base frame from fork lift damage. To remove the struts, extract the sheet metal retainers and pull the struts through the base of the unit. Refer to rigging label on the unit.

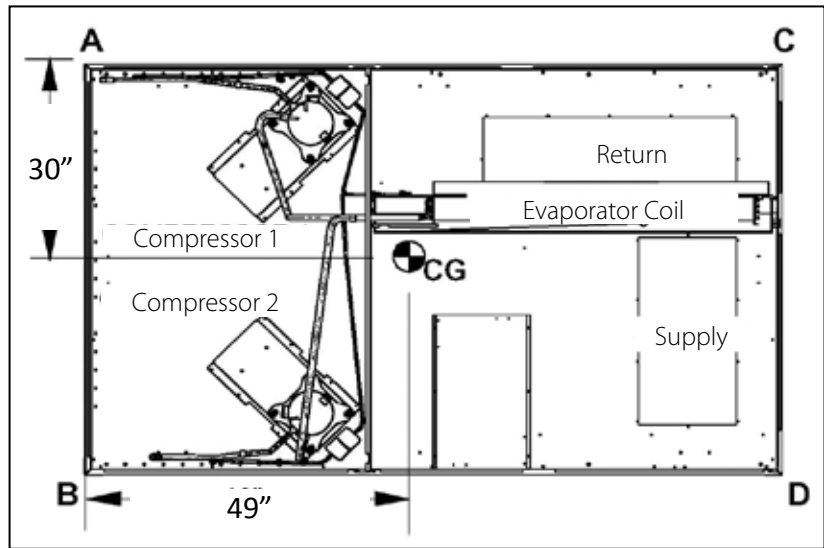


Important: If using bottom discharge with roof curb, duct-work should be attached to the curb prior to installing the unit. Duct-work dimensions are shown in Roof Curb Installation Instructions Manual.

Refer to the Roof Curb Installation Instructions for proper curb installation. Curbing must be installed in compliance with the National Roofing Contractors Association Manual.

Lower unit carefully onto roof mounting curb. While rigging the unit, the center of gravity will cause the condenser end to be lower than the supply air end.

Bring condenser end of unit into alignment with the curb. With condenser end of the unit resting on curb member and using curb as a fulcrum, lower opposite end of the unit until entire unit is seated on the curb. When a rectangular cantilever curb is used, take care to center the unit. Check for proper alignment and orientation of supply and return openings with duct.

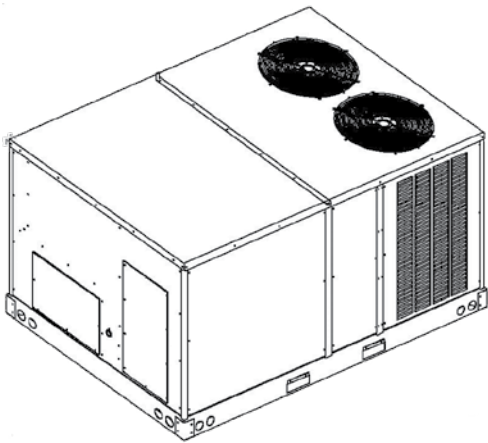


CORNER & CENTER-OF-GRAVITY LOCATIONS

UNIT WEIGHTS	7½-TON WEIGHTS (LBS)	8½-TON WEIGHTS (LBS)	10-TON WEIGHTS (LBS)	12½-TON WEIGHTS (LBS)
Weight A	285	345	345	435
Weight B	285	325	325	345
Weight C	285	320	320	300
Weight D	285	300	300	240
Shipping Weight	1175	1310	1310	1350
Operating Weight	1135	1285	1285	1325

Note: These weights are calculated without accessories installed.

ROOF CURB INSTALLATION (CONT.)



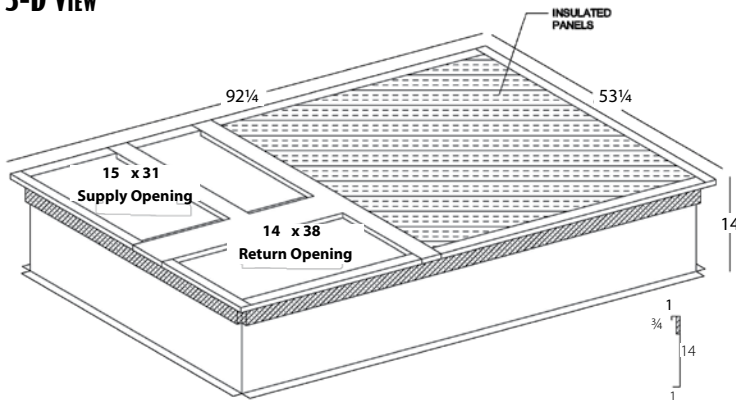
Curb installations must comply with local codes and should follow the established guidelines of the National Roofing Contractors Association.

Proper unit installation requires that the roof curb be firmly and permanently attached to the roof structure. Check for adequate fastening method prior to setting the unit on the curb.

Full perimeter roof curbs are available from the factory and are shipped unassembled. The installing contractor is responsible for field assembly, squaring, leveling, and mounting on the roof structure. All required hardware necessary for the assembly of the sheet metal curb is included in the curb accessory package.

- Determine sufficient structural support before locating and mounting the curb and package unit.
- Duct-work must be constructed using industry guidelines. The duct-work must be placed into the roof curb before mounting the package unit. Our full perimeter curbs include duct connection frames to be assembled with the curb. Cantilevered-type curbs are not available from the factory.

3-D VIEW

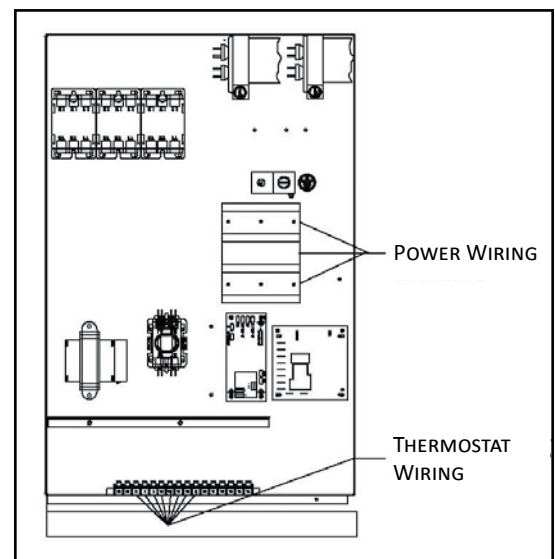
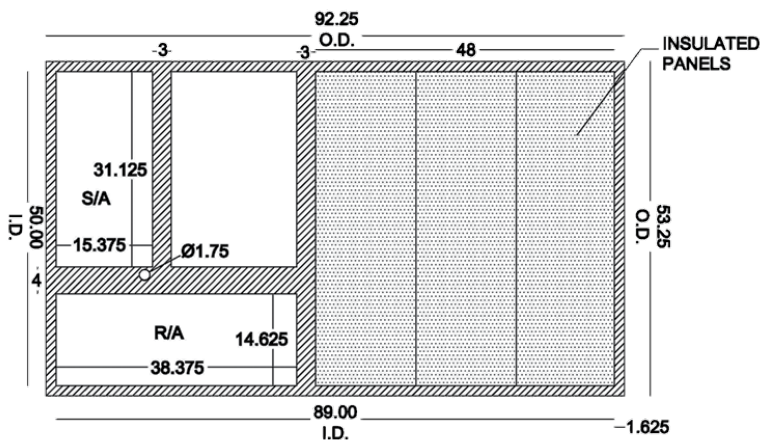


- Contractor furnishes curb insulation, cant strips, flashing, and general roofing material.
- Support curbs on parallel sides with roof members. To prevent damage to the unit, the roof members cannot penetrate supply and return duct openings.

Note: The unit and curb accessories are designed to allow vertical duct installation before unit placement. Duct installation after unit placement is not recommended.

See the manual shipped with the roof curb for assembly and installation instructions.

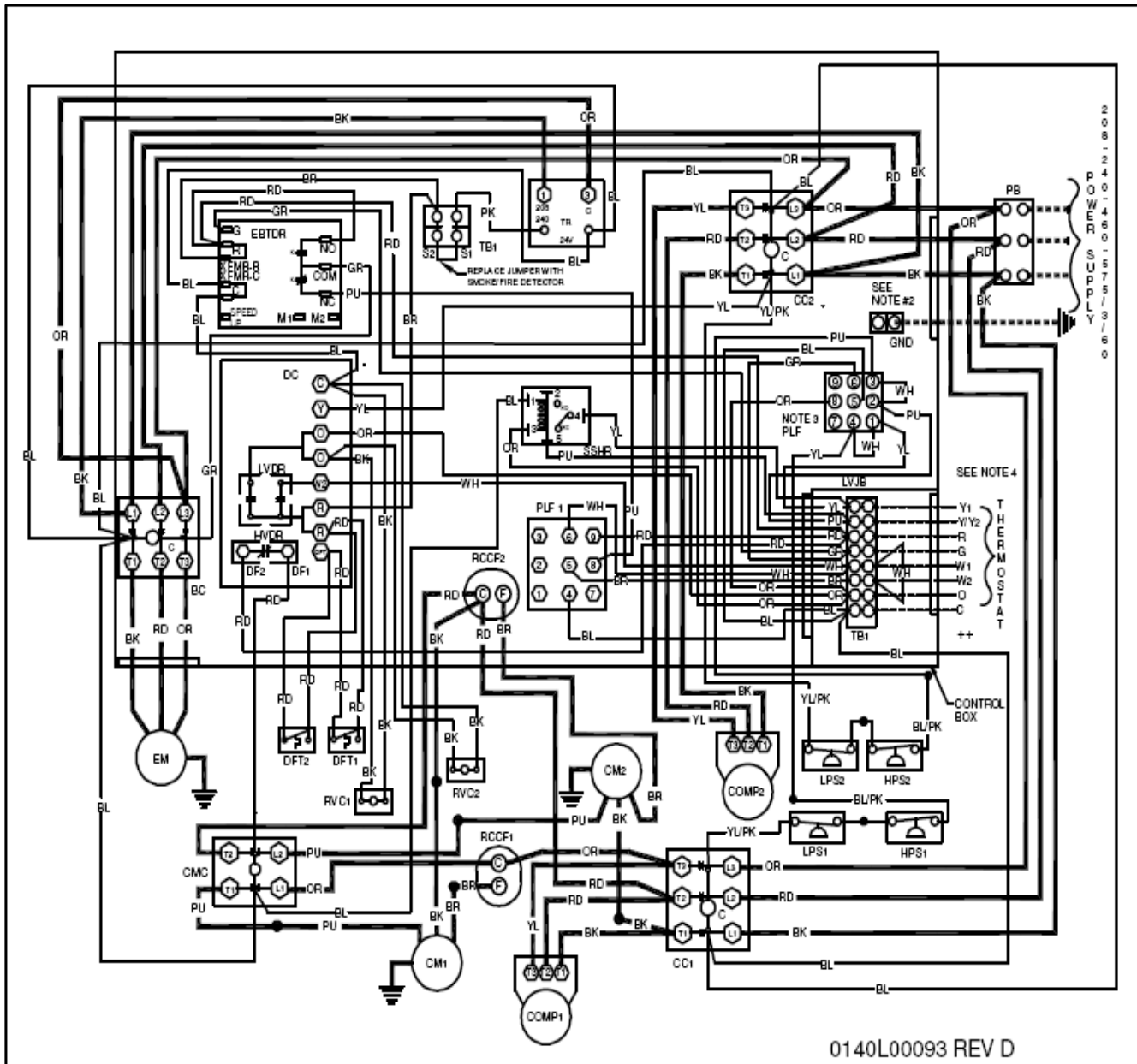
TOP VIEW





POWER AND LOW-VOLTAGE BLOCK LOCATIONS

WIRING DIAGRAM — CPH090-120***3B/ 4B

(FOR MODELS WITH SERIAL NUMBERS 0907 AND BELOW)

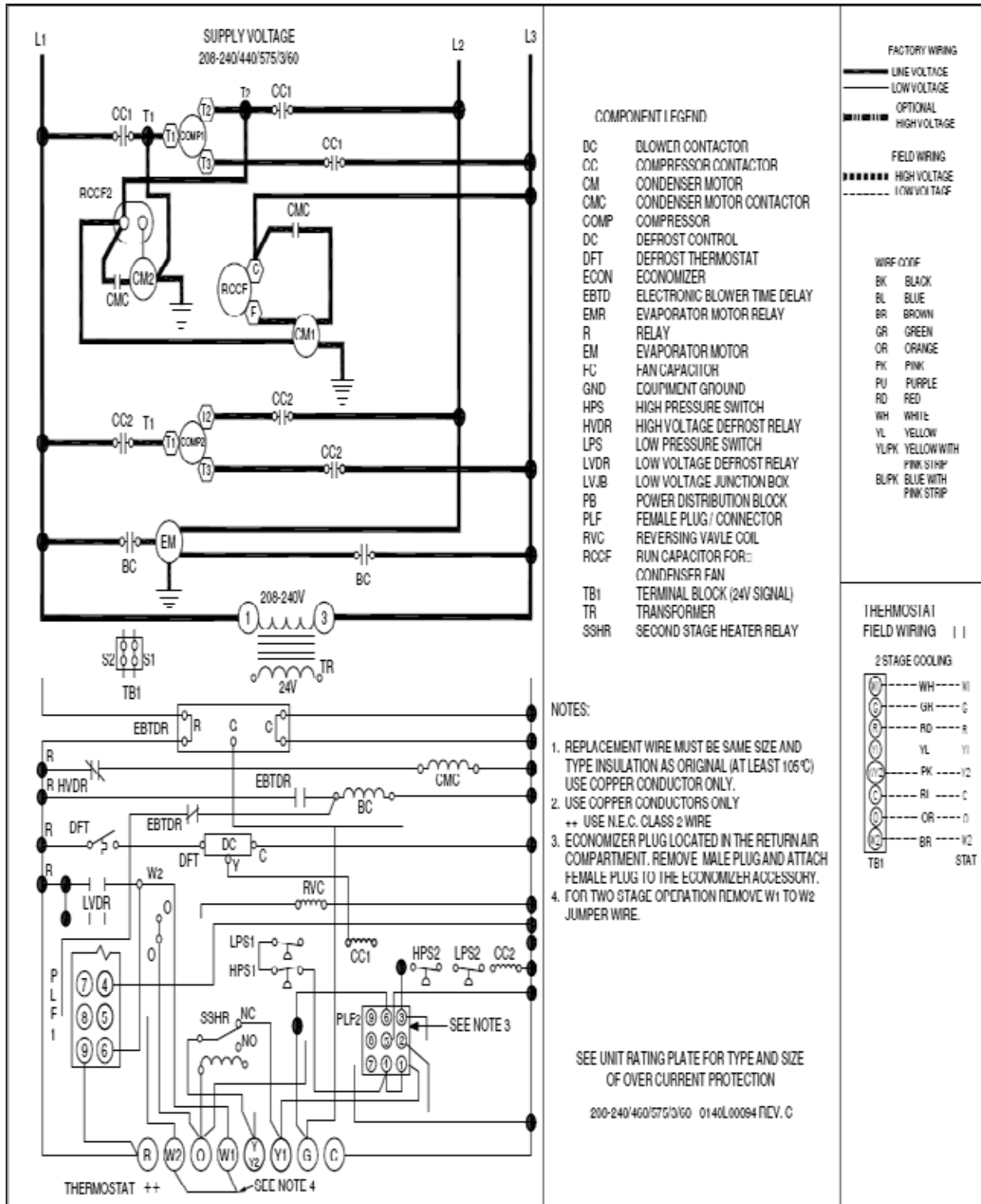


Wiring is subject to change. Always refer to the wiring diagram or the unit for the most up-to-date wiring.

 WARNING	High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.	
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WIRING DIAGRAM — CPH90-120***3B/ 4B (CONT.)

(FOR MODELS WITH SERIAL NUMBERS 0907 AND BELOW)



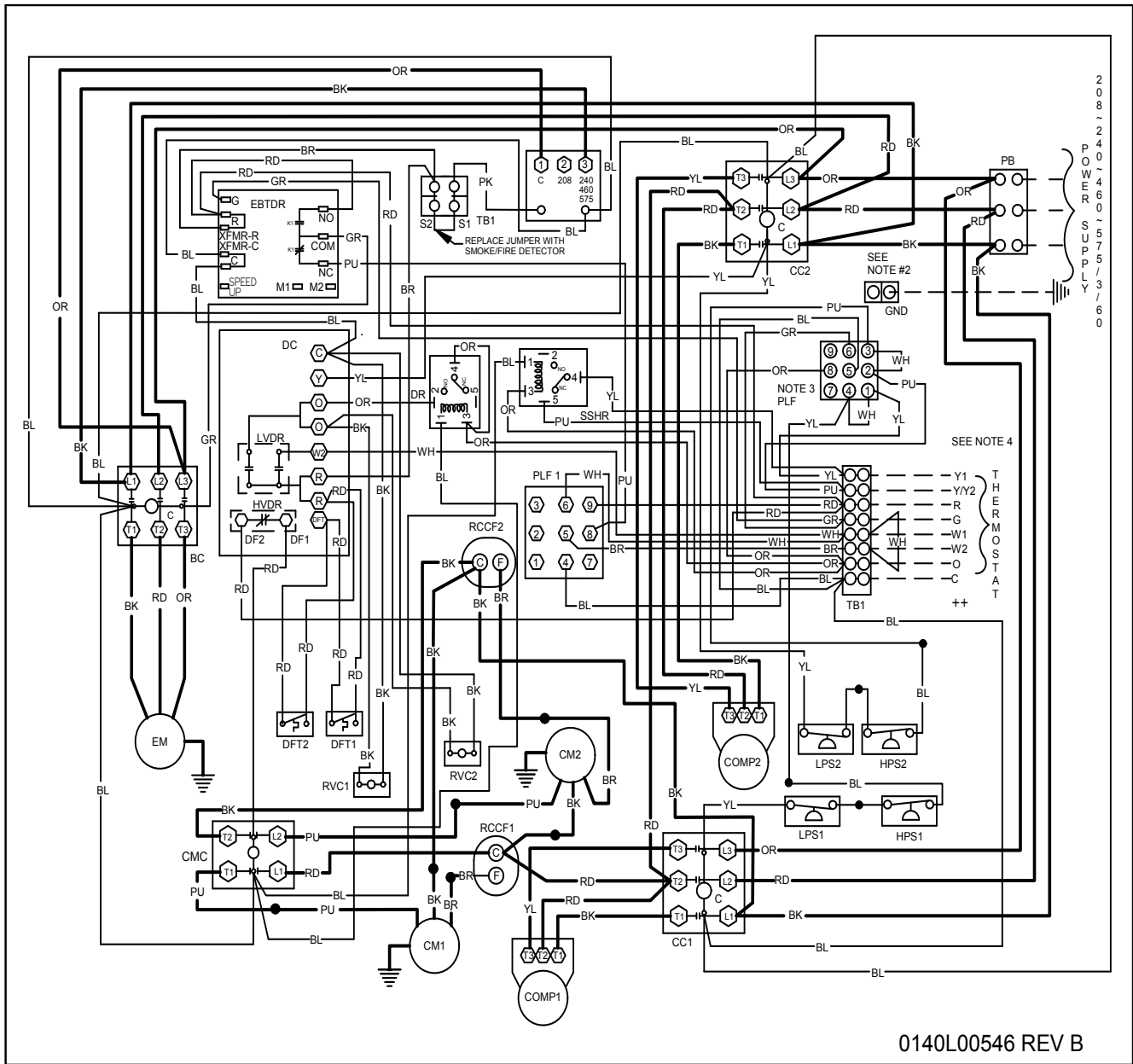
Wiring is subject to change. Always refer to the wiring diagram or the unit for the most up-to-date wiring.



High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.



WIRING DIAGRAM — CPH090-120***3B/ 4B/ 7B***



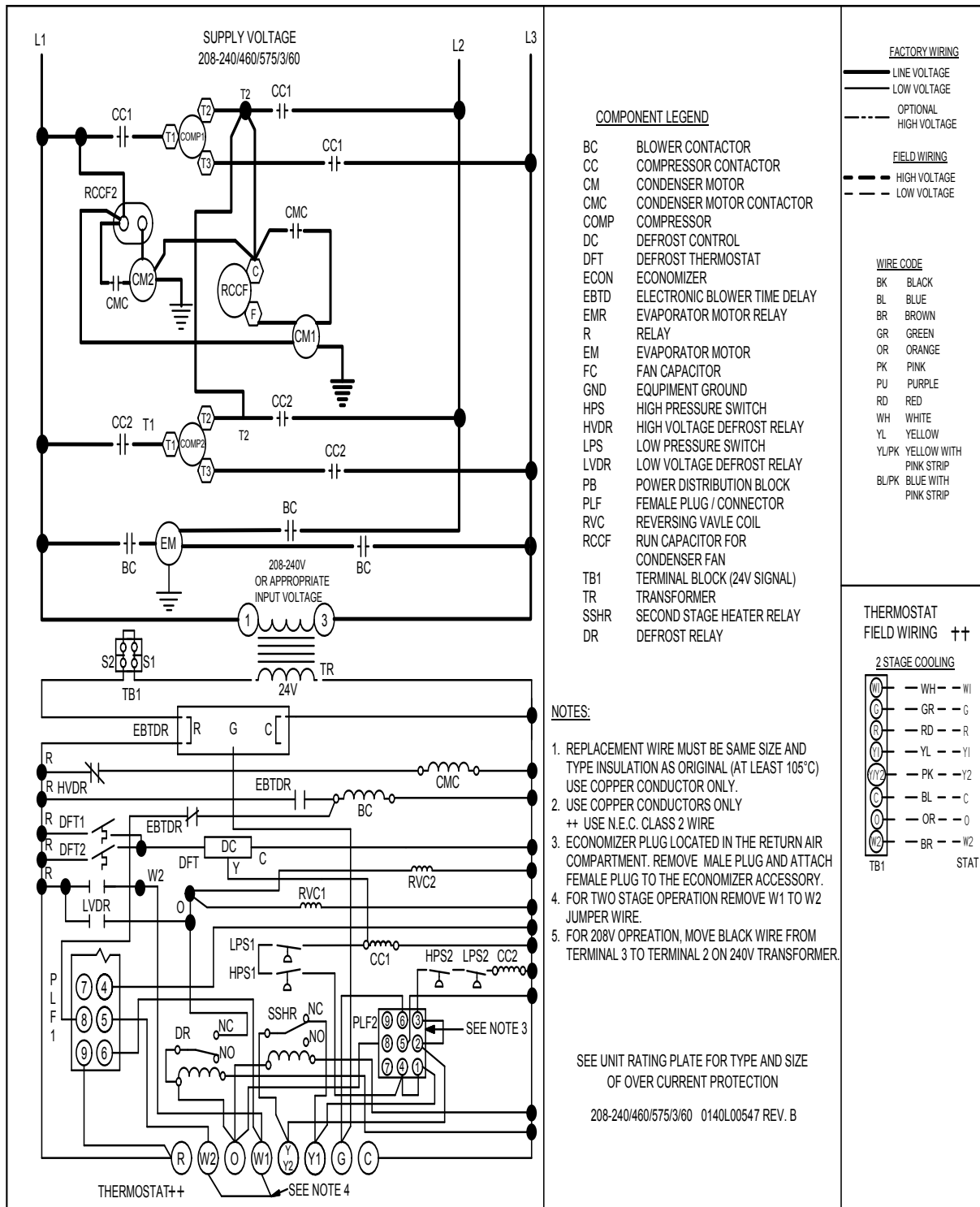
0140L00546 REV B

Wiring is subject to change. Always refer to the wiring diagram or the unit for the most up-to-date wiring.

⚠ WARNING

High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death. ⚡

WIRING DIAGRAM — CPH90-120***3B/ 4B/ 7B*** (CONT.)

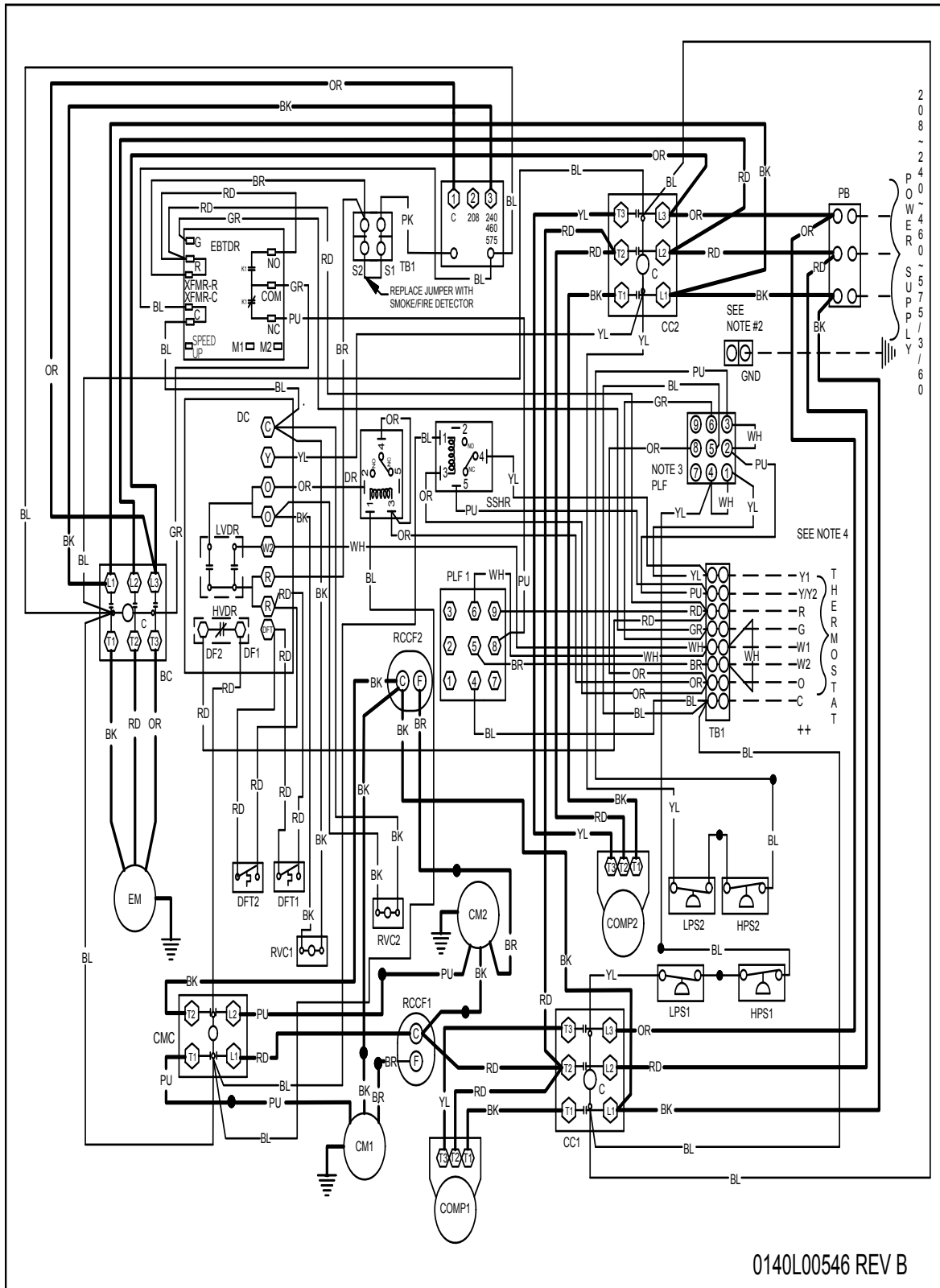


High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.

WARNING

Wiring is subject to change. Always refer to the wiring diagram or the unit for the most up-to-date wiring.

WIRING DIAGRAM — CPH150***3B/ 4B/ 7B***



0140L00546 REV B

⚡

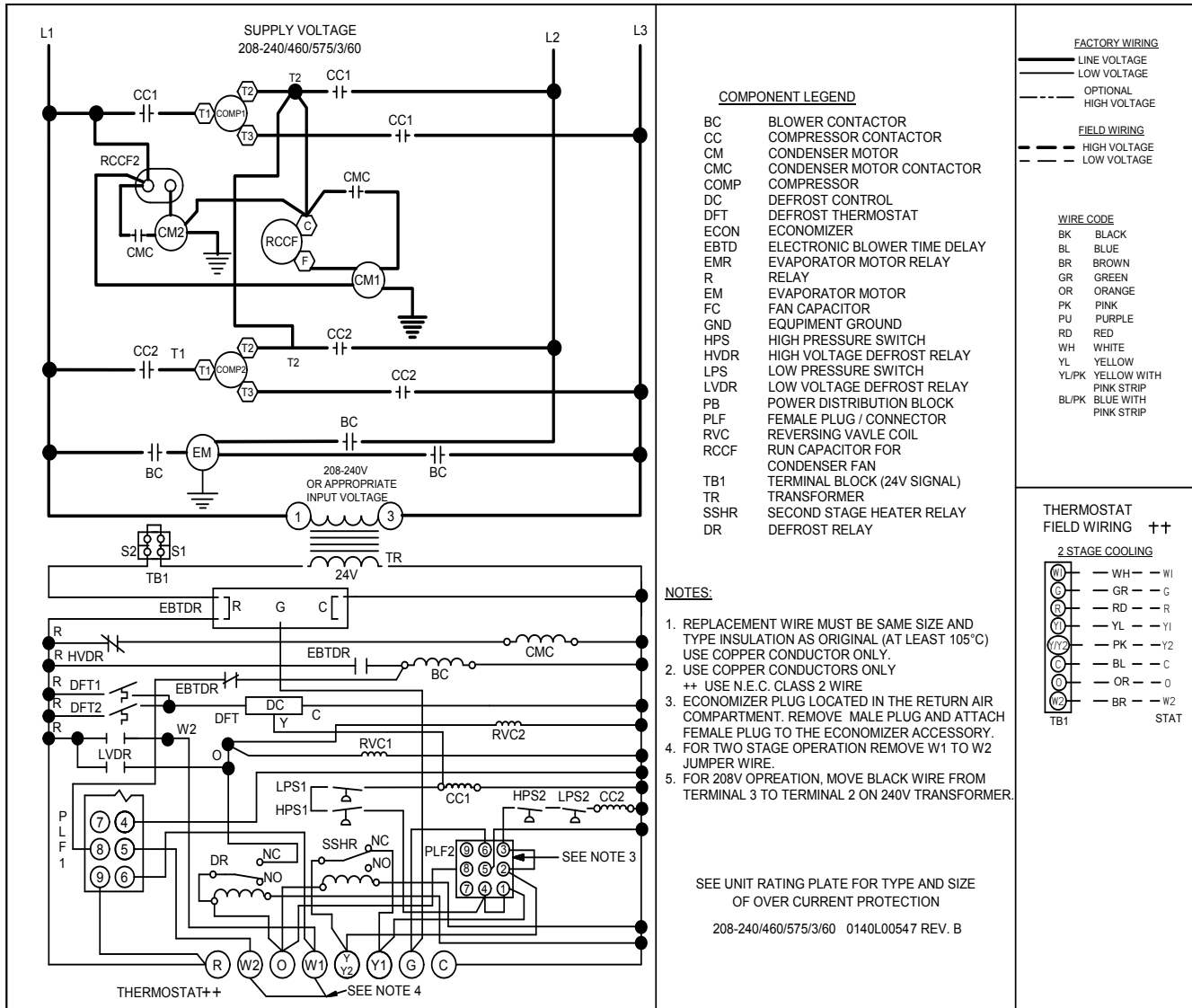
High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.

⚠

WARNING

Wiring is subject to change. Always refer to the wiring diagram or the unit for the most up-to-date wiring.

WIRING DIAGRAM — CPH150***3B/ 4B/ 7B*** (CONT.)



Wiring is subject to change. Always refer to the wiring diagram or the unit for the most up-to-date wiring.



High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.



ACCESSORIES

ITEM #	DESCRIPTION	FITS MODEL SIZES
14CURB90150	Roof Curb 14" Tall	7½-12½ tons
25FD90150	25% Manual Fresh Air Damper	7½-12½ tons
25MFD90150	25% Motorized Fresh Air Damper	7½-12½ tons
BRD3672	Horizontal Barometric Relief Damper (two required)	7½-12½ tons
CDK120	Concentric Duct Kit	10 tons
CDK150	Concentric Duct Kit	12½ tons
CDK90102	Concentric Duct Kit	7½-8½ tons
DNBBS90150	Burglar Bar Sleeves: Includes Supply & Return	7½-12½ tons
DNECONGS90120	Downflow Economizer	7½-10 tons
DNECONGS150	Downflow Economizer	12½ tons
DNSQRRND90	Downflow Square-to-Round Adapter 20" Round	7½ tons
GHRC-1	Hurricane Restraint Clip	All Models
HailGD02	Condenser Coil Hail Guard	7½-10 tons
HailGD05	Condenser Coil Hail Guard	12½ tons
HAKT36300	High-Altitude Kit	All Models
HSKT090	High-Static Kit for 8½-ton AA models (230/460v)	8½ tons
HSKT090G	High-Static Kit for AA & BA models (230/460v)	7½ tons
HSKT120	High-Static Kit for AA models (230/460v)	10 tons
HSKT150	High-Static Kit for AA models (230/460v)	12½ tons
HZECONGS90150	Horizontal Economizer	7½-12½ tons
LAKT02	Low-Ambient Kit for units with serial number below 0909	7½ - 12½ tons
LAKT03	Low Ambient Kit for units with serial numbers 0909 and above	7½ - 12½ tons
LPKT36150	LP Conversion Kit	7½-12½ tons
PE901502	Power Exhaust 208/230 Volt	7½-12½ tons
PE901504	Power Exhaust 460 Volt	7½-12½ tons

NOTES

NOTES



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